Digital Video Management Platform

Operation Manual

(Ver4.0_EN090903)

Contents

PREFACE **3**

CHAPTER 1 WELCOME **4**

1.1 RUNNING ENVIRONMENT 4
1.2 SYSTEM COMPONENTS 4
1.3 SPECIAL SYSTEM FUNCTION 5
1.4 MAIN SYSTEM FUNCTION 6

CHAPTER 2 INSTALLATION AND CONFIGURATION OF DIRECTORY SERVER **9**

2.1 INSTALLATION OF DIRECTORY SERVER 9
2.2 CONFIGURATION OF DIRECTORY SERVER 11
2.2.1 Configuration of Video Camera *12*
2.2.2 Configuration of Alarm Equipment *16*
2.2.3 TV Wall Configuration *17*
2.2.4 Other Configuration of Device Manager *18*
2.2.5 User Setting *18*
2.2.6 System management *20*

CHAPTER 3 MANAGEMENT CONTROL CENTER **23**

3.1 INTRODUCTION TO MAIN HUMAN INTERFACE 23
3.2 VIDEO VIEWING AND PAN/TILT AND LENS CONTROLLING 25
3.3 VIDEO CAMERA GROUPING AND VIDEO GROUP SWITCHING 26
3.4 INTERCOM 27
3.5 VIDEO RECORDING SYSTEM 28
3.6 DEVICE STATUS 28
3.7 LOG VIEWING 29
3.8 OTHER PARAMETER CONFIGURATION OF SYSTEM SETTING 30
3.8.1 Default Connection *30*
3.8.2 Display Screen Configuration *31*
3.8.3 Video Recording Setting *32*
3.8.4 Keyboard Setting *33*
3.8.5 Keyboard Control Grouping *34*
3.8.6 System Setting *35*
3.8.7 TV Wall Control Setting *36*
3.9 REMOTE PARAMETER SETTING 37
3.9.1 User Management *37*
3.9.2 Terminal Device *38*
3.9.3 Terminal Network Parameter *40*
3.9.4 Alarm Inputting *40*
3.9.5 Alarming Output *42*
3.9.6 Remote Recording *43*
3.9.7 Video Image OSD *43*
3.9.8 Video Compressing *44*
3.9.9 Video Input Configuration *45*
3.9.10 Video Motion Detection *46*

3.9.11 Decoder Parameter *48*
3.9.12 System Setting *49*

CHAPTER 4 ALARM AND E-MAP 51

4.1 ADD AND DELETE E-MAP 52
4.2 ADD OR DELETE DEVICE 52
4.3 LINKAGE ALARM 53
4.4 LOG VIEWING 59
4.5 ALARM ANSWERING PROCESS 61

CHAPTER 5 DECODING AND TV WALL CONTROLLING 62

5.1 DISPLAY IMAGES ON TV WALL 62
5.2 VIDEO CAMERA GROUP SWITCHING 63
5.3 CONTROL TV WALL BY MANAGEMENT CENTER 64

CHAPTER 6 STORE AND PLAY 66

6.1 SERVER MANAGEMENT 67
6.2 BACKUP SCHEME 69
6.3 STREAM STORAGE 70
6.4 DISK MANAGEMENT 72

CHAPTER 7 STREAM MEDIA RELAY SERVER 74

CHAPTER 8 REPLAY VIDEO FILE 80

8.1 SUMMARY OF PLAY INTERFACE 80
8.2 PLAY LOCALLY 81
8.3 PLAY REMOTELY 82
8.4 CAPTURE AND PROCESS PICTURE 83
8.5 PLAY PARAMETER SETTING 83
8.6 RIGHT-CLICK MENU AND PLAY CONTROL 85

CHAPTER 9 RELATED OPERATIONS OF HIGH DEFINITION NETWORK DEVICES 87

9.1 ADDITION OF HIGH DEFINITION CAMERA IN DIRECTORY SERVER 87
9.2 REMOTE PARAMETER SETTING 89
9.2.1 User Management *90*
9.2.2 Terminal Device *91*
9.2.3 Terminal Network Parameter *93*
9.2.4 Alarm Input *93*
9.2.5 Alarm output *95*
9.2.6 Remote Recording *96*
9.2.7 Video Image OSD *96*
9.2.8 Video Compressing *97*
9.2.9 Video Input Configuration *98*
9.2.10 Video Motion Detection *99*
9.2.11 Decoder Parameter *101*
9.2.12 System Setting *102*
9.3 HIGH DEFINITION VIDEO CAMERA ALARMING 103

Preface

This manual is to give a full introduction to "VMP Digital Video Management Platform" mainly applied for centralized network video monitoring management, and assist users to install and manage this system quickly. Besides learning how to establish this system, users can also understand how to carry on centralized monitoring management of network video by utilizing the system's powerful functions so as to experience a brand-new, fast and excellent solution for network monitoring. Meanwhile, users can be prepared by the information concerning problems that may occur when using this system, e.g., FAQ, etc.

How to read this manual

The manual is mainly to explain the powerful management functions of this system. Users can always find the useful information from the manual, no matter one is new to or familiar with the VMP Centralized Video Management Platform. One can read each chapter in order, or find any needed information quickly by the directory. The content provided in this manual, such as operation tips of the VMP Digital Video Management Platform, is greatly helpful for users to start quickly.

The table bellow can help users to read the manual quickly:

If one is	Please read first	
New to the platform	Chapter 1	Welcome
	Chapter 2	Installation and Configuration of Directory Server
	Chapter 3	Management Control Center
An experience platform	Chapter 2	Installation and Configuration of Directory Server
Administrator	Chapter 3 – Chapter 9	
An operator	Chapter 3	Management Control Center
	Chapter 6	Store and Play

Convention

Before using this system, users are required to be familiar with operations of Windows as much as possible and master mouse operations and program management skills that are necessary. For example,

Click, double click, right click and drag a mouse

Programs install, run, and uninstall

For the purpose of clear description and easiness of operations, the manual adopts some conventions for language description, given in the table bellow.

Convention	Meaning
	Note: Know-how and other information that are helpful to complete a task are provided.

If there are differences between screen display and illustration picture

Due to the consistent improvement of this system as well as the system template interface that is changeable by user, the screen of users' software system may not be the same as the illustration pictures in this manual.

Chapter 1 Welcome

Thanks very much for using VMP Digital Video Management Platform. It will provide a powerful, easy to use, safe and flexible solution for centralized network video monitoring management.

1.1 Running environment

Due to the consistent improvement of this system as well as the system template interface that is changeable by user, the screen of users' software system may not be the same as the illustration pictures in this manual

The running environment of the management center platform described in the manual is the most basic requirement. The display resolution for management interface should not be lower than 1024X768 to achieve the best effect. Please read the configuration requirement bellow in Table 1-1 first.

System running environment

Table 1-1

Project	Details
DirectX	Microsoft DirectX9.0 or higher versions
OS	Windows XP, Windwos 2003, Windows Vista (32)
Web browser	IIS5.0 or IIS6.0
Data engine	MS ACCESS 2000 or MS SQL Server 2000
Space size	At least 30MB space available for first-time installation
Hardware	Intel Core2 Duo CPU; 2G DDR memory or higher
Display	NVIDIA GF7300 (256M) or higher
Bandwidth	100M sharing or higher

1.2 System Components

The system consists of 6 modules. The functions of the main modules are described briefly as following. The detailed operation descriptions are given in later chapters.

1) Directory server: For usage of add-ons of devices, including video-camera, alarm equipment, TV wall and e-map, etc., and configuration for video-camera grouping.

2) Alarm e-map: For usage of joint centralized management platform to set up protection areas and carry out tests for Linkage Alarm.

3) Stream media relay server: To download front-end device information via directory server to relay audio and video signals from frond-end devices to client-ends via network and relay alarm signals via centralized management platform.

4) Centralized management center: Powerful control and management function;

5) Virtual digital matrix: To support various combinations of different TV walls and remotely monitor the matrix platform by centralized management platform;

6) Storage server: To store, retrieve and play.

1.3 Special System Function

- Multi-screen display and self-adaptable wide-screen
- Centralized user management: All users should be managed via directory server to centralize configuration management of user priority and authorization of control;
- Centralized directory tree management: All system video cameras and alarm equipments are numbered, authorized and prioritized under unified management.
- Various combinations of different TV walls: To support the monitor walls of hardware or software decoding machines; to support the centralized control of multiple decoding host machines; and to support other decoding solutions;
- Virtual matrix technology: To support monitoring any channel image of front-ends cyclically, switching those images by group, and decoding display; and to support CCTV keyboard control, image retrieval and alarming;
- Centralized control: Remote control of pan\tilt and lens as well as invocation of pre-set points; remotely turning on/off; remotely starting recording manually;
- Centralized device management : To check around the working statuses and network connection of devices via network, and remotely modify device parameters; to remotely upgrade software; to remotely retrieve and back-up recorded video files; and to support a detailed log management system;
- Centralized alarming management: multi-level e-map display; protection deployment and cancellation of remote alarms; pre-definition for alarm answering and Linkage Alarm; various acoustic and light signals for alarming; interfaces for other Linkage Alarm systems and devices;
- Stream media video relay: To support unlimited relay and sub-control management of video images;
- Compatible to many devices from main-stream hardware manufacturers;
- Multi-level sub-control: The management centers can have cascaded connection and carry out authorization management control by level; a temporary command center can be easily set up;
- Distributed/centralized storage of network video: To support the distributed and centralized storage of recorded video files;
- Real-time talkback: A bilateral phonetic (or textual) talkback system for management centers, DVR/NVS host machines and sub-control ends;
- Supporting heterogeneous network: To support different kinds of networks (internet, data special line, satellite and wireless wave, etc.) that can carry IP data; to support remote control cross routers; and to support multi-casting;
- Compatible interfaces: To provide different kinds of interface for later development and system joint action;
- Supporting multiple languages: An operating system automatically adaptable to Simplified Chinese,

Traditional Chinese and English;

- Supporting double-click hot standby: To guarantee the platform running stably.

1.4 Main System Function

1> System architecture

- Highly flexible interface design and various templates that can be set to be hidden or display and manually dragged or automatically arranged; the interface style can be changed;
- Modular design: modules can be upgraded and extended individually;
- Simplified front-end which configuration can be done by back-end or center;
- Database management has more powerful query and retrieval functions and detailed event-logging processing, and supports Access and SQL database;
- Wizard setting can guide users to start quickly with human-friendly prompts and operations and simplified user operation;
- Priority and conflict detection mechanism are introduced, as well as trusty higher level mode;
- Dynamic language menu can be edited by self-definition, imported and exported.

2> Flexible display mode

- Visual and easy-for-searching logic grouping and directory tree display;
- Simply dragging and dropping can complete server connection and display of video images, support concurrently monitoring in local and remote locations, viewing and video recording at workstations in different geographic locations;
- To support multiple window display modes, like 1/4/6/8/9/10/13/16/25/36, and real-time audio and video connection;
- To support multi-screen display;
- Widescreen 16:9 or normal screen can be self-defined;
- To support virtual matrix TV wall display/switch; to support centralized control of multiple decoding machines; and to support decoding of devices produced by different manufacturers;
- Personalized window layout and connection status that can be automatically stored as default parameters;
- Regional enlargement of video images;
- The sequence of video cameras (cyclically) can be displayed and controlled in VGA display or emulated monitor display. The constantly switching images of video cameras are displayed in a window on the VGA or TV wall. In the window, reading pre-set points or fancy scanning can also be done. The display time of each image are self-defined;
- The grouped video cameras are switched by group. All cameras in a group are displayed in multiple windows in one screen;
- To display and control alarming information, and display and switch video images from cameras that

are related to the alarm;

- To display and control multi-level e-maps and map navigation of cameras;
- Multiple authorized users in different nodes in the network can view, manage and record videos simultaneously.

3> Powerful control and centralized management functions

- Centralized user authentication combined with distributed authentication to realize multi-level management;
- User and user group policy management and self-definition of priority;
- Password directory mode;
- Logic directory tree and physical directory tree are under unified and centralized management;
- Each camera can be viewed with its PTZ control authorization self-defined;
- Self-definition of system management authorization;
- The authorization of viewing and PTZ control for low-priority users are locked;
- High-priority users can snatch the authorization of viewing and PTZ control from low-priority users;
- To support mouse and 3D'S PTZ control of CCTV keyboard, and recording and invoking at pre-set points.
- To directly control PTZ direction (reserved) in windows;
- Instant locking of video image and pan/tile and lens by high-priority users;
- Local alarm output inputted by motion detection and sensors, and joint output by the management centers;
- Manually start or stop video recording, and combine centralized storage with distributed storage;
- Instantly capture the image in the current frame in the current window and save it (snapshot);
- Remote configuration, centralized management and setting, backup and recovery of device parameters;
- Devices can be automatically retrieved and identified. And IPs are assigned by batch;
- System device auto diagnosis;
- Centralized alarm answering, cascading, relay;

4> Detailed event and alarm logging

- Instant warning of alarms (indication light on a tool bar, sound, automatically switching alarm video)
- Display, answering and relay of alarming events;
- Events of monitoring system;
- Self-definition of audio information of alarms;

5> Store, retrieve and play

- Real-time stream storage and backup, and multiple centralized storage methods;

- Self-definition of manually video recording and centralized storage, and many kinds of video recording scheme and task;
- Recorded video files can not be tampered easily;
- Video recording and replay can be carried out simultaneously;
- Many intellectual ways for retrieval of recorded video files;
- Multiplex synchronized replay, forwarding, long playing and playing by frame of video image;
- Video footage cutting and file combination and backup; video file format conversion, alarms and e-map.

Chapter 2 Installation and Configuration of Directory Server

2.1 Installation of directory server

1. Close all currently running programs and exit all anti-virus software possibly running;
2. Install files are compressed packages or self-extracted compressed packages. After extraction, Setup.exe shall run automatically and the installation wizard shall be displayed as illustrated in Figure 2-1.

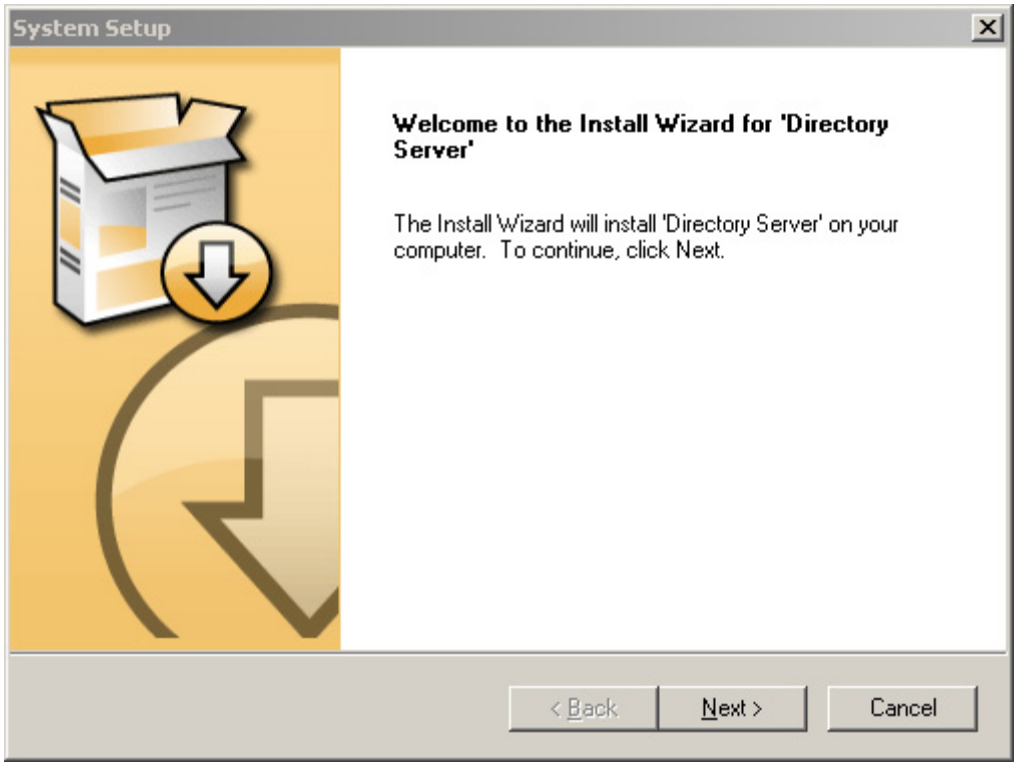


Figure 2-1

Directory server is the foundation for any other software to run. No software can run without installation of directory server.

Click “Next” button to continue, as illustrated in Figure 2-2. In the figure, there is shown a system prompt for selection of destination location that is chosen for the installation path of the centralized directory server. The default installation path is “C:\Program Files\AVSYSTEM\Directory Server”. However, users can click on “Browse” button to choose their installation path according to their actual situation. It is recommended to use the default path and click on “Next” to continue.

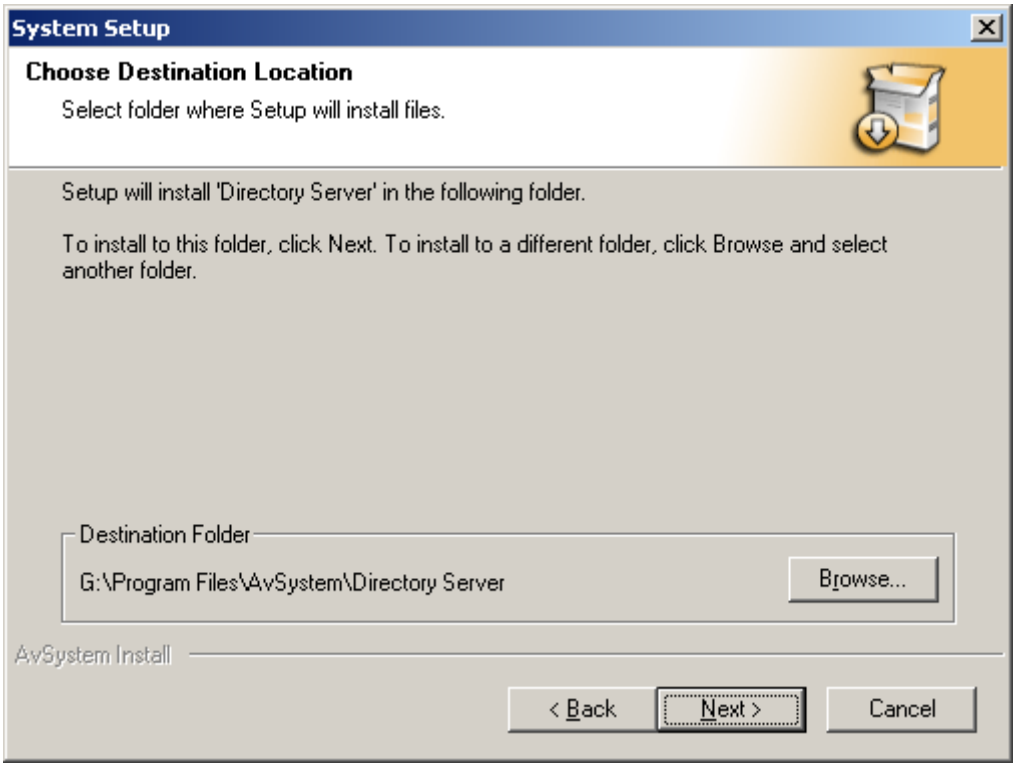


Figure 2-2

Enter the option for program file folder selection, as illustrated in Figure 2-3. It is recommended to use the default file folder name, easy for maintenance, and click “Next” to continue.

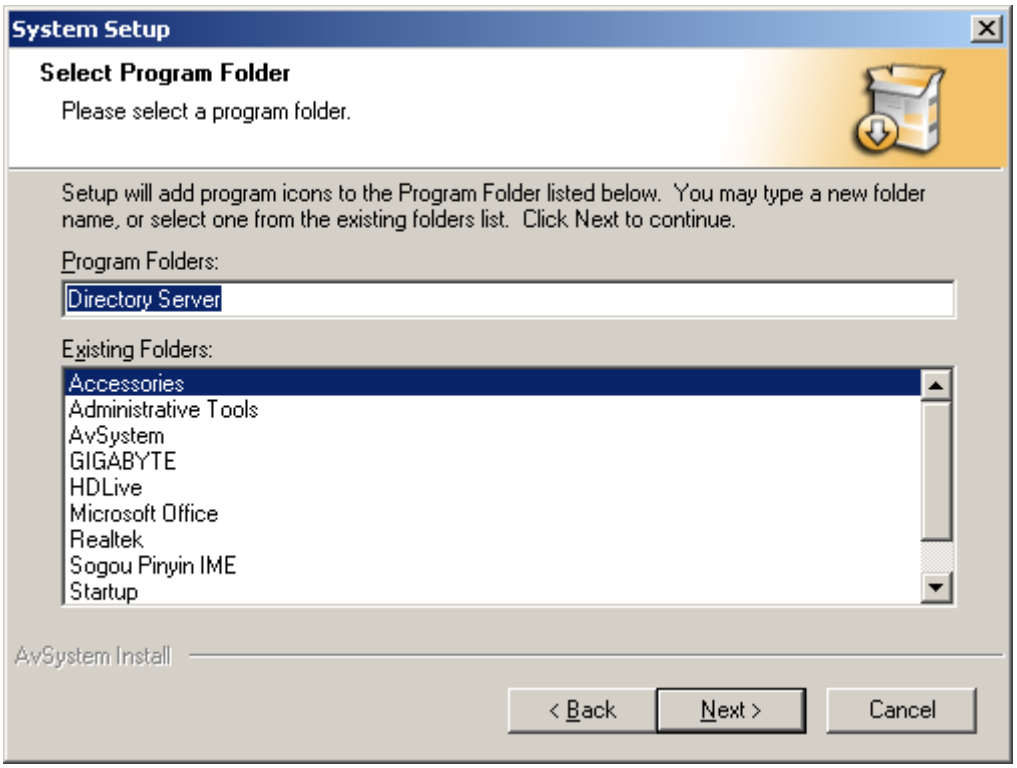


Figure 2-3

Enter the step of auto-installation, as illustrated in Figure 2-4.

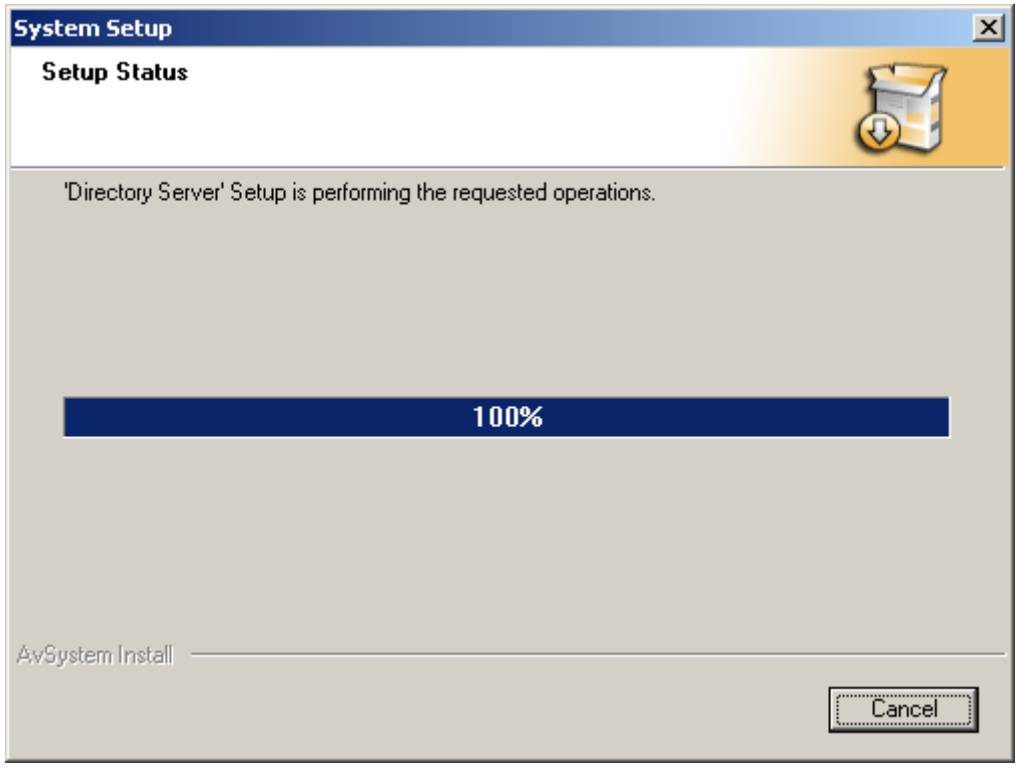


Figure 2-4

After completion of installation, as illustrated in Figure 2-5, a shortcut icon shall be appeared on the desktop.

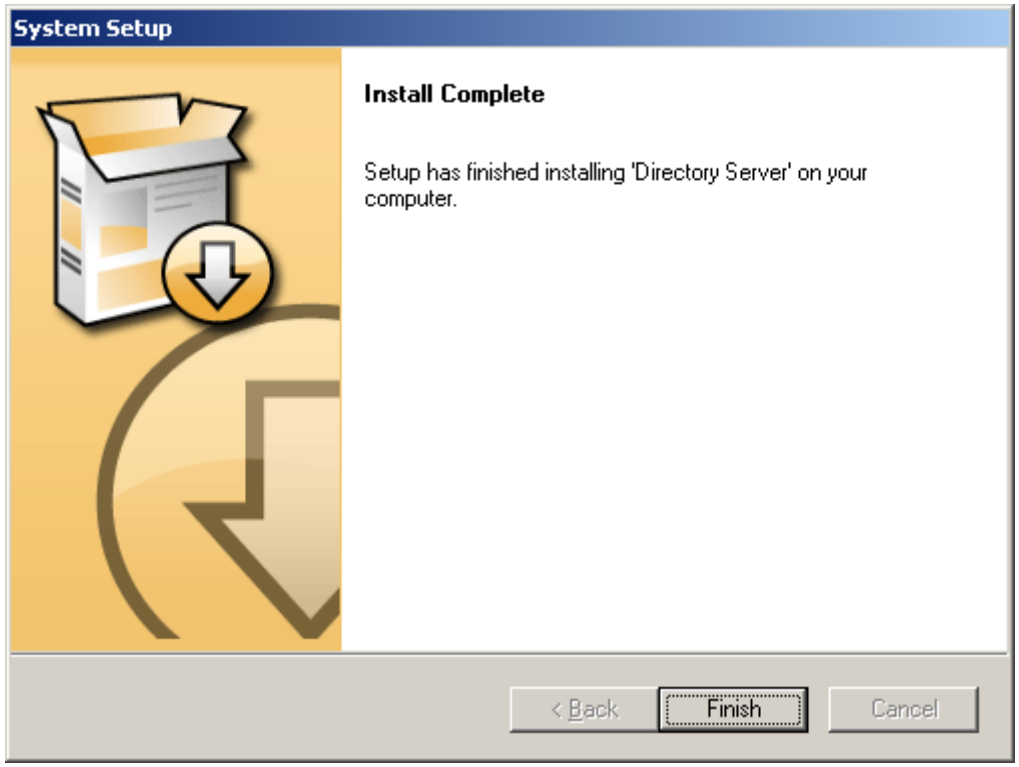


Figure 2-5

2.2 Configuration of Directory Server

Users can log on the directory server, as illustrated in Figure 2-6.

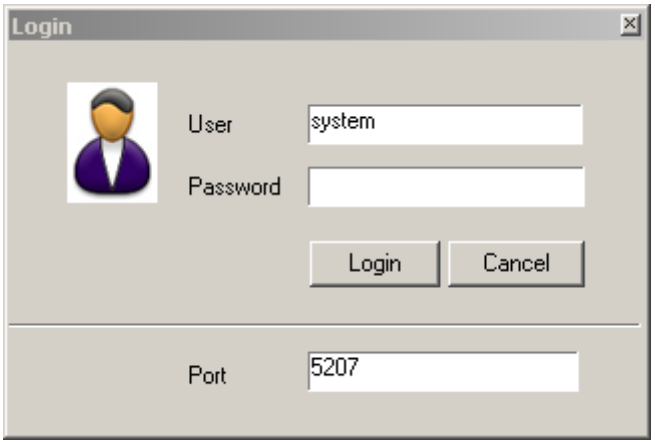


Figure 2-6

Username set by the manufacturer is system, and password is empty.

After logon, users can configure the directory server to add, change and delete the server devices. The management center system can support centralized management of multiple servers and devices. And users can define in the directory server and realize centralized management control. The manageable devices include video cameras, alarming equipments, e-maps, TV walls, management center, storage server and log server, etc. Users can add the devices into device groups for management by category.

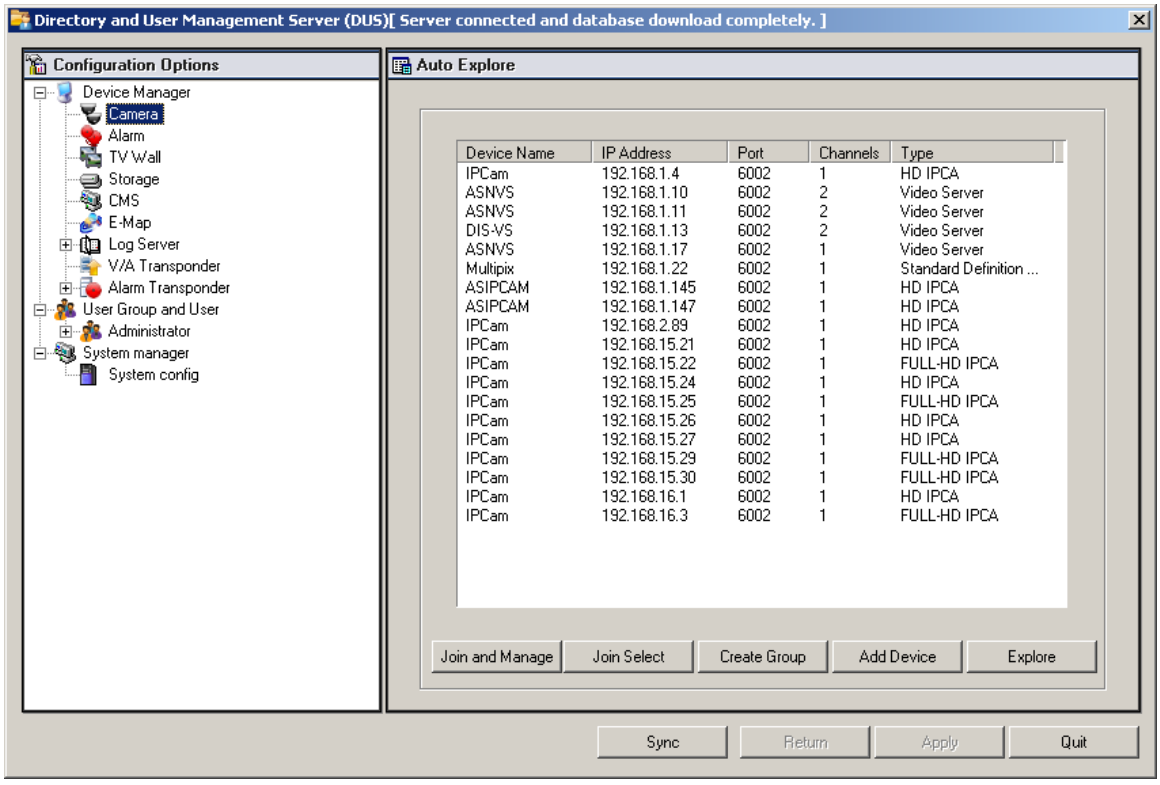


Figure 2-7

2.2.1 Configuration of Video Camera

As illustrated in Figure 2-7, the first step is to add video cameras. In order to identify their locations, device groups are set and then video cameras are added into the groups, as in Figure 2-8.

Product Type: To identify whether an added servers is a video server, or a DVR host machine, or a server type manufactured by other producer;

Device Title: a label displayed in the directory tree, defined by user;

Server IP Address: IP address corresponding to a front-end DVR or video server;

Port No: data port connecting devices. Please keep the default value if not known.

User Name: user who is authorized to log on a device;

User Password: password that corresponds to an authorized user;

Allow VTS: If the system is connected by a VTS, please specify the address and port of the relay.

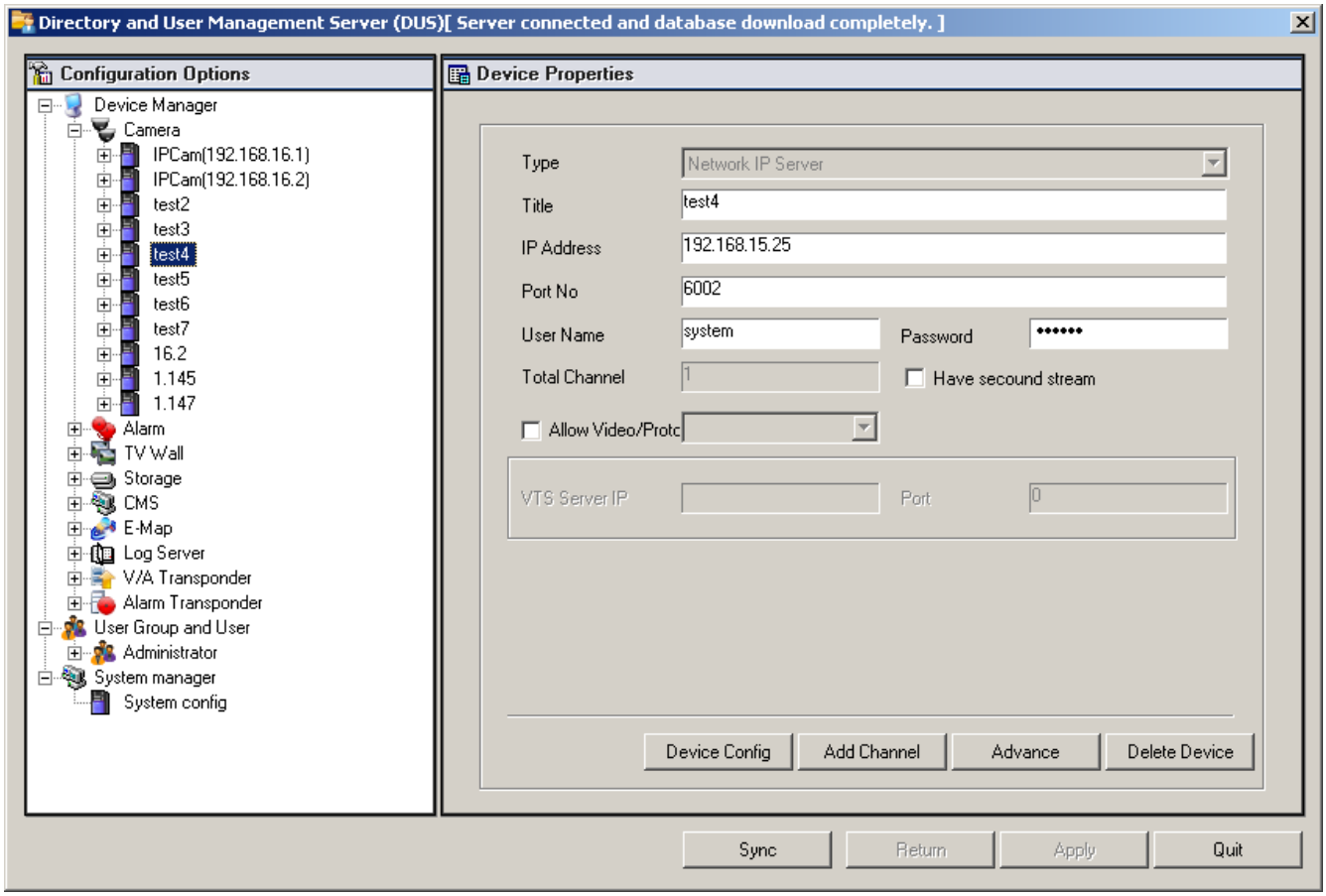


Figure 2-8

At the location of “Product Type”, it is able to choose between High Definition network camera, Network video server, Digital video recorder, DVS embedded (HIK) and DVS embedded (DH). After selection, the system can find out the initial username and password of the chosen device, as well as its server port. Then it is only needed to input the device name and IP address.

The directory server can automatically retrieve network cameras. After finding the network cameras, it is able to add the cameras into the server. Please note that all network cameras have the same device name, so the device names of added devices must be changed. No duplicated name is allowed, or storage server recording cannot work properly. As shown in the figure bellow, after cameras are added, their names are shown as IP Camera and must be changed. As shown bellow, IP Camera (192.168.16.1) and IP Camera (192.168.16.2) are the cameras names added by automatic retrieval. The names must be changed, or the storage server cannot work

properly.

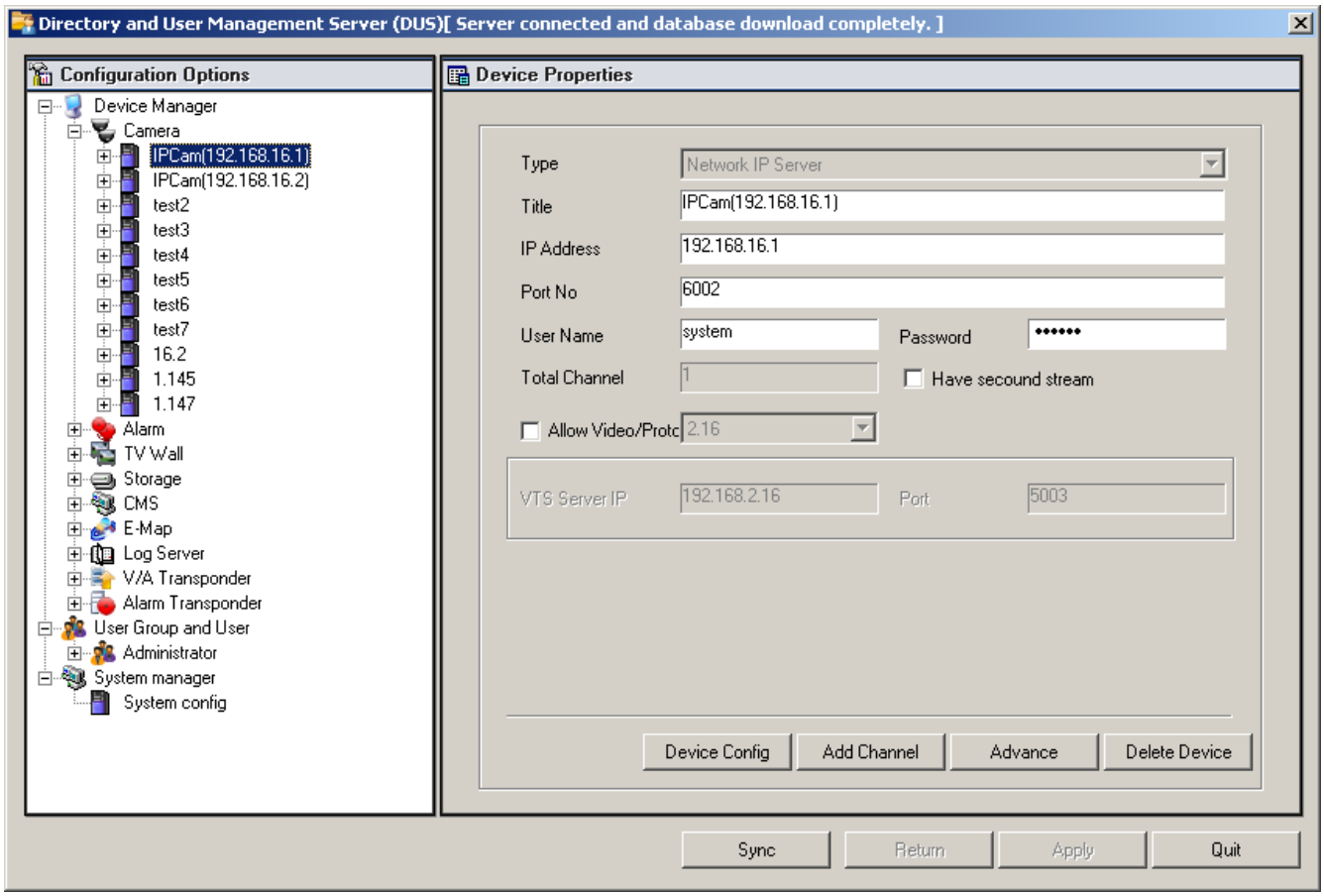


Figure 2-9

Device property can set up whether a device has its storage or not, whether a device reports alarm signals subjectively, whether to check online status of a device by PING, and whether to close a device's alarm information. The special control port and file transfer port of server can also be set. The setting is shown as bellow.

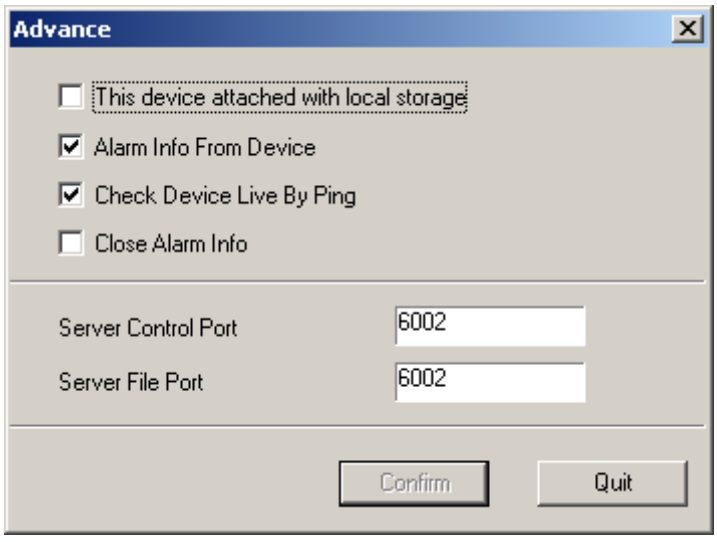


Figure 2-10

The DVR port of AipStar is 6000. And the NVS video server port of AipStar is 6002. The embedded or

video server port of HIK Vision is 8000, and DH embedded port is 37777. Normally, user can keep the default value.

If it is necessary to start cyclically switching in the management center or on TV wall, it is needed to set up camera groups in the directory server, as in Figure 2-11.

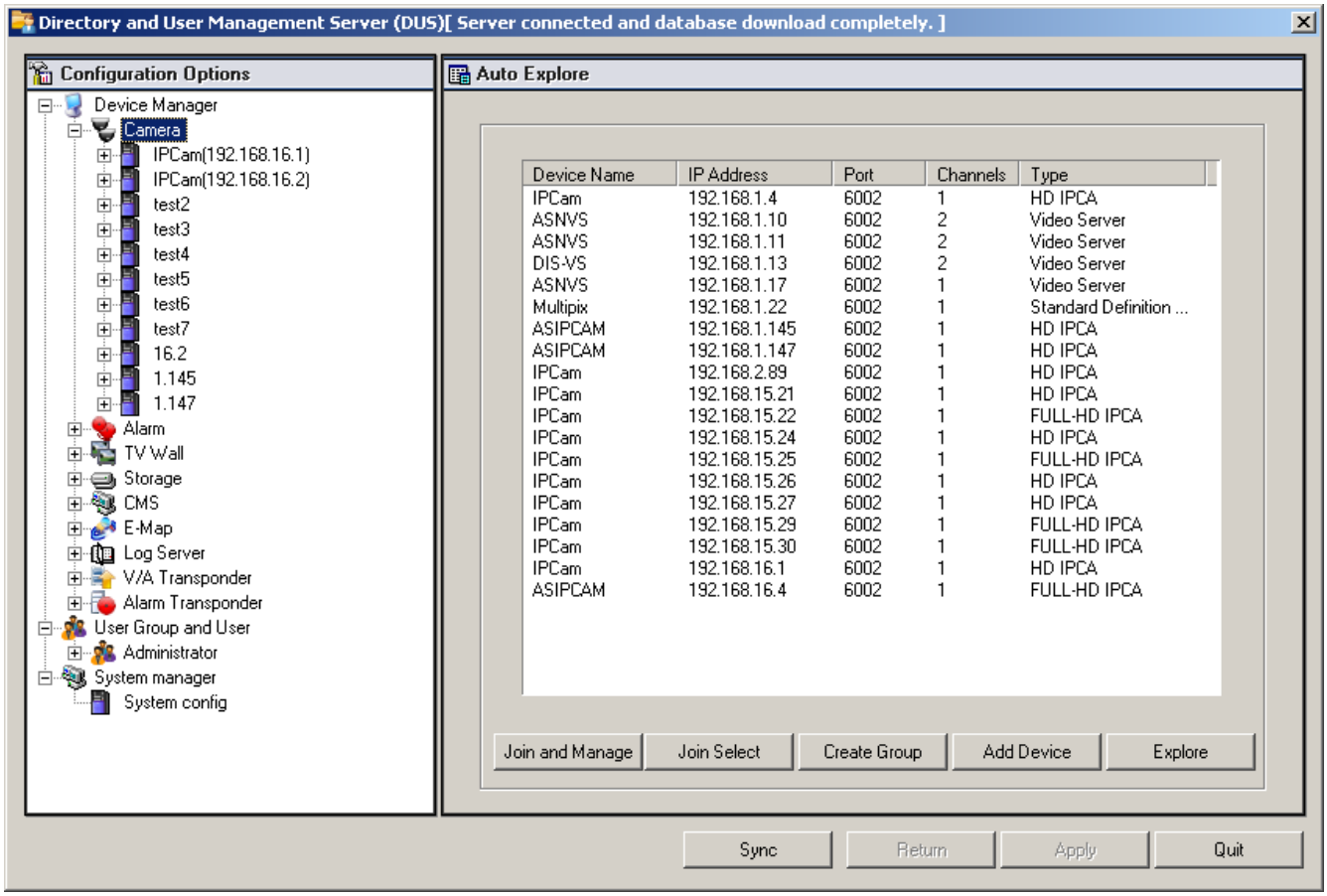


Figure 2-11

After all cameras are added, click video camera in the device manager. In the panel on the right, a “Join and Manage” button is appeared. After selecting “Join and Manage”, it is able to set up new camera group and the cameras in them. Click “New group” and set a name for the new camera group, then click “>>” or “<<” button to add or delete cameras from the list in the left panel into the groups in the right panel, as in Figure 2-12.

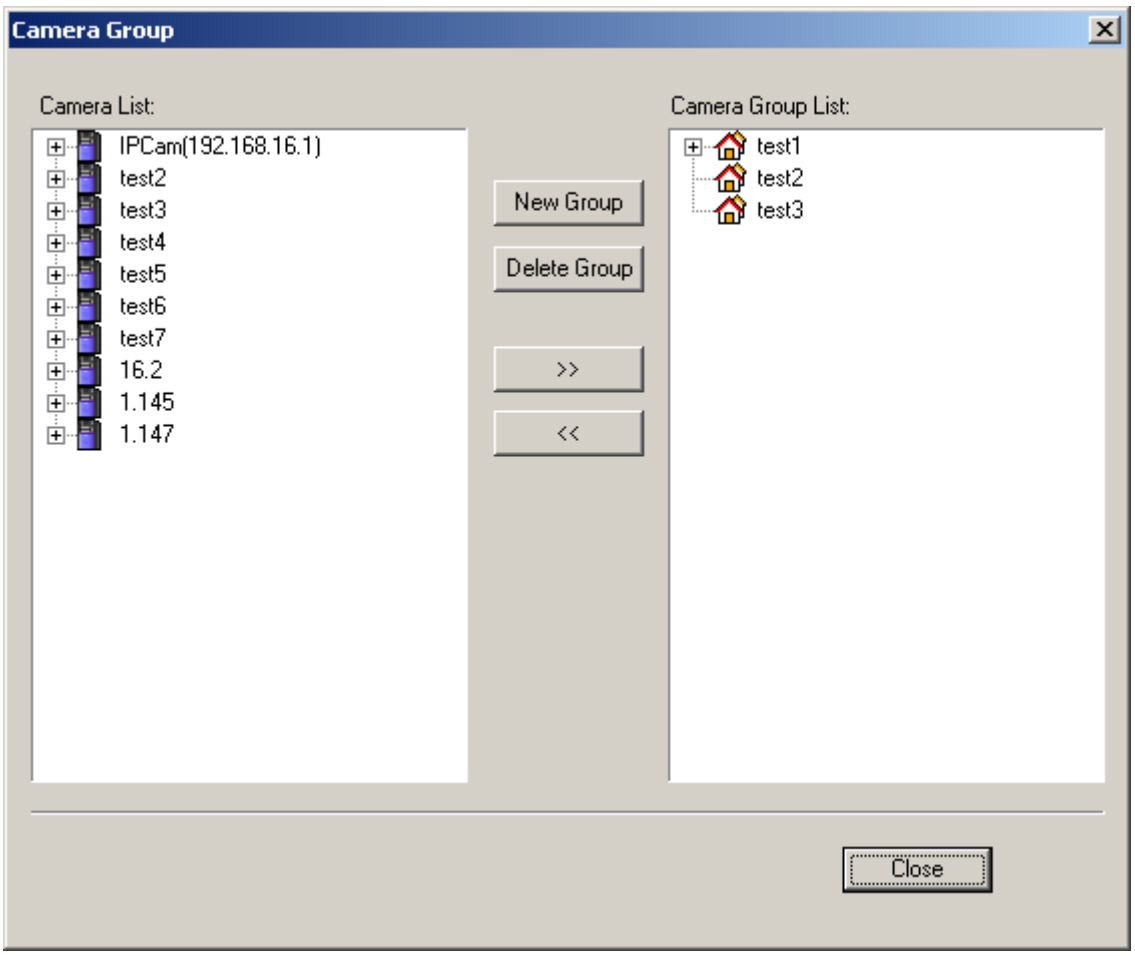


Figure 2-12

2.2.2 Configuration of Alarm Equipment

Addition of alarm equipment is for e-map to carry out Linkage Alarm, similar to video camera configuration, as in Figure 2-13.

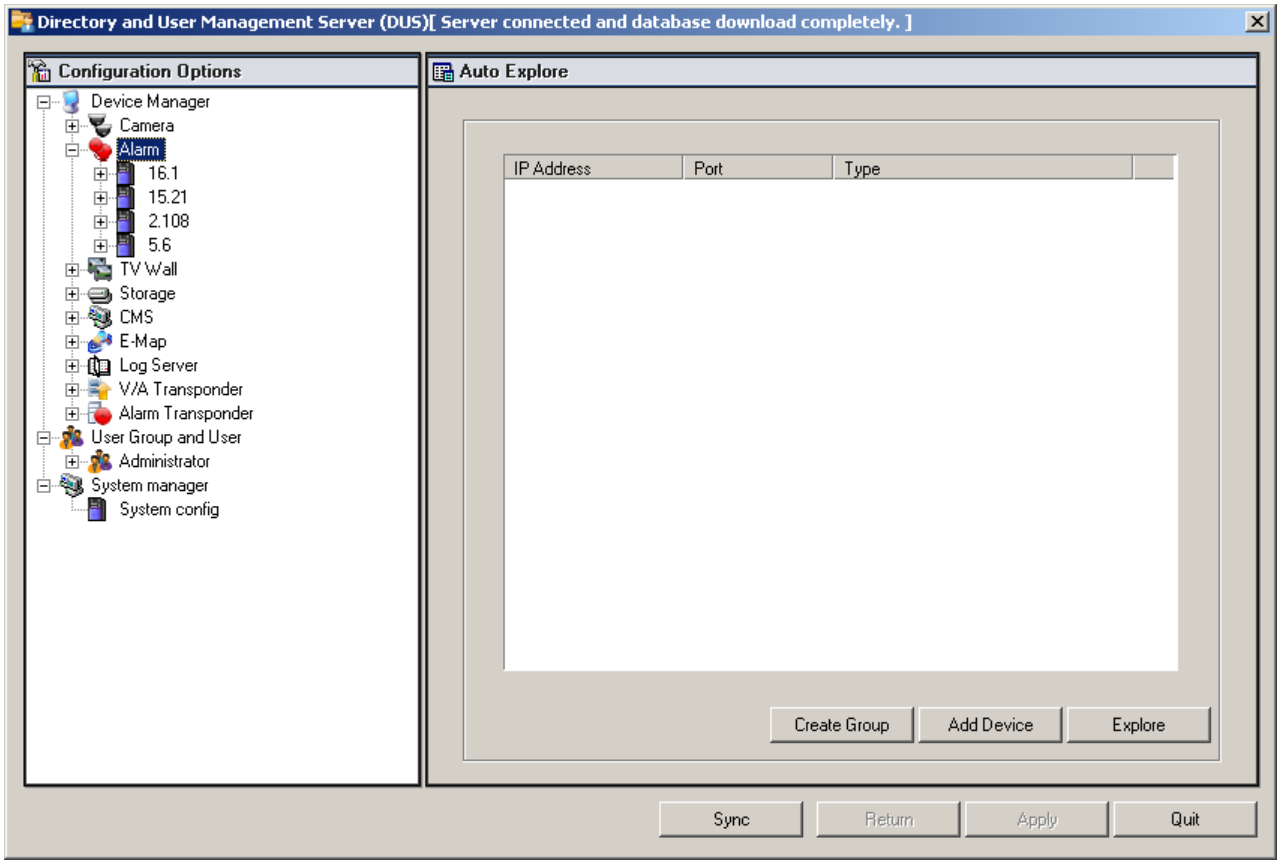


Figure 2-13

2.2.3 TV Wall Configuration

Select “TV Wall” from the directory tree to add TV walls or decoding devices in the system. It is required to add the devices’ name, server address, port and authorized username & password, as in Figure 2-14.

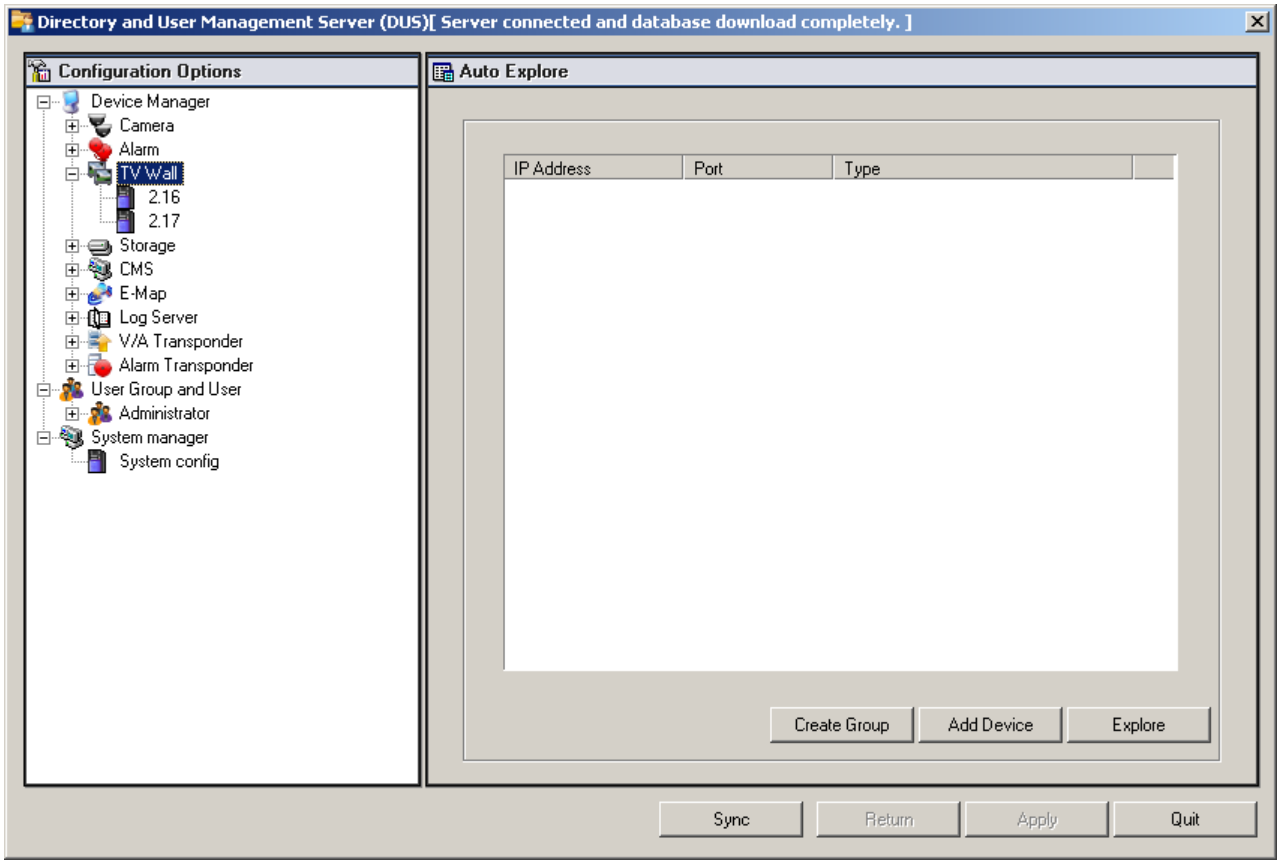


Figure 2-14

2.2.4 Other Configuration of Device Manager

Here have other modules, including storage, management center, e-map, log server, alarm relay and stream media relay, etc. The modules are only required to add the device name and IP address of the computer on which each module is installed. The port and username and password are defaulted by the system.

The information of log server and alarm relay shall have the address of the directory server automatically loaded after the directory server is installed.

If there is other software modules required by the system, it is necessary to have each module added individually so as to obtain the related communication information and data port transfer from the directory server.

After modification of the directory, it is required to click “Synchronization” button. Other software modules shall automatically log on again after receiving the synchronization signal,

2.2.5 User Setting

In the setting for “User group and user”, it is able to add users into management center, change password and delete user. An administrator can add new user group and new user, and set user authorization. Each user can be set to be in a group. Each group has different authorization that is specifically set in user authorization setting.

Viewing permission: Click user group name to set the viewing permission of the user group. Set the authorization for users to view and control video cameras or video camera groups.

Check the check-box in front of video cameras to set the permission for the current user to view and control the

current video camera, which is to have the authorization of the current video camera. In default condition, new user or user group have no authorization granted to view or control any video camera. User can automatically inherit the authorization of its user group unless the user has already had it.

Uncheck the checkbox to cancel the user or user group's authorization to view and control the current video camera.

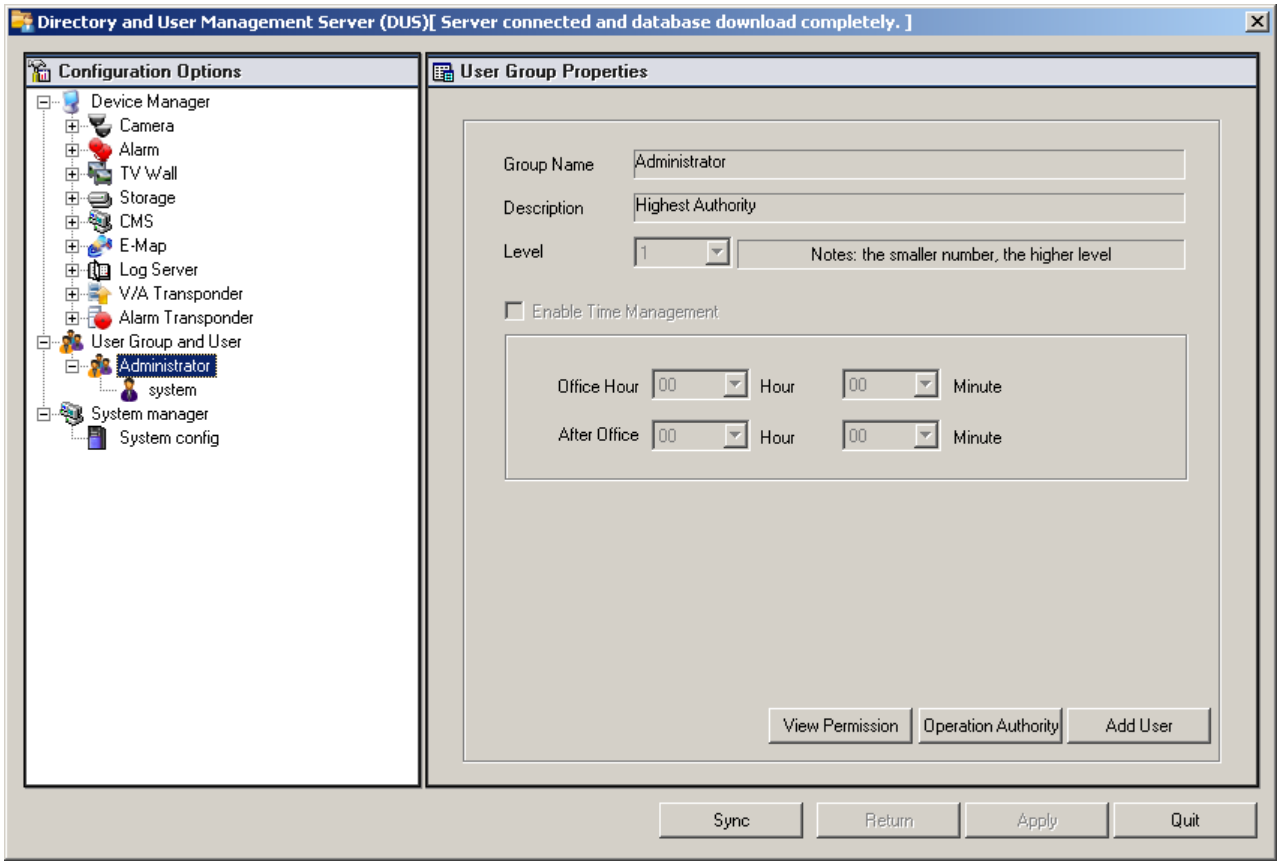


Figure 2-15

Operation Authorization: To set the operation authorization of application program (or function) granted to the currently selected user group. The scope of display and control for user in the system is one of operation authorization for user to operate on system menus and function. User authorization can be inherited from its user group, mainly including management\browser\control and play. And authorization control consists of permission and declination.

Check the checkbox in front of an authorization to grant this authorization to the current user or user group.

Uncheck the checkbox to cancel the user or user group's authorization to view the current video camera

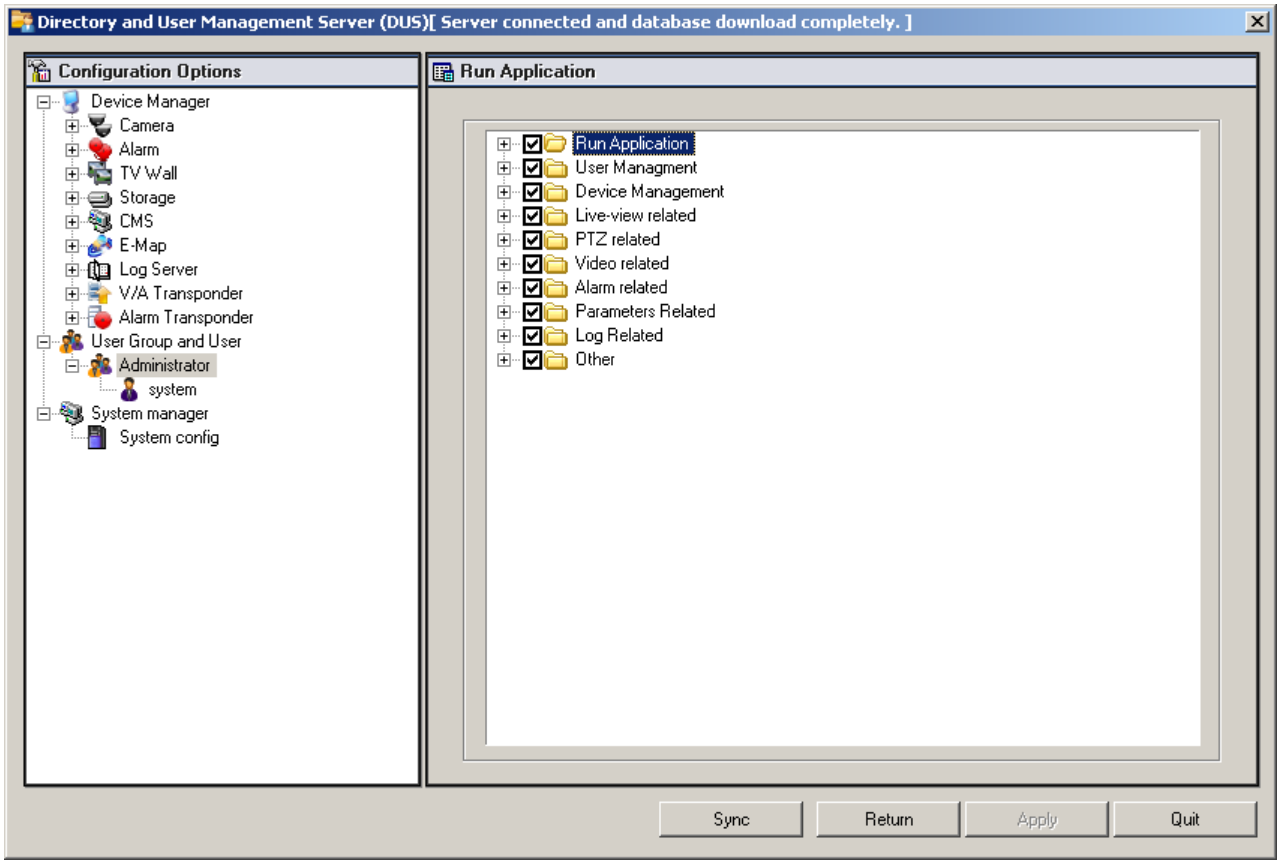


Figure 2-16

2.2.6 System management

In system management, user can carry out data backup and recovery of the information added in the directory server.

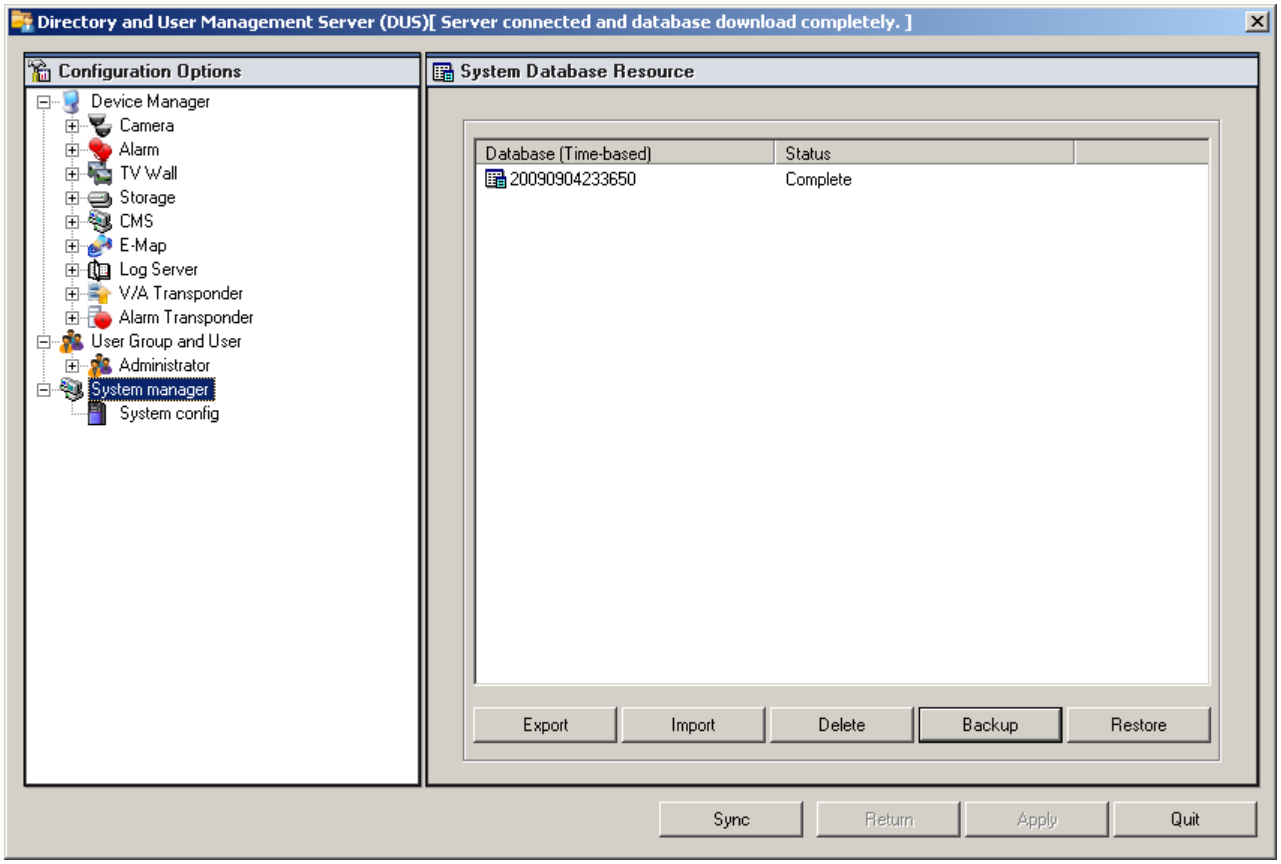


Figure 2-17

In the basic setting for the server, users can read the version and communication port of the current directory server, configure double backup service mode that requires 2 network cards, one for sending heartbeat packages and another for communication, as in the figure bellow.

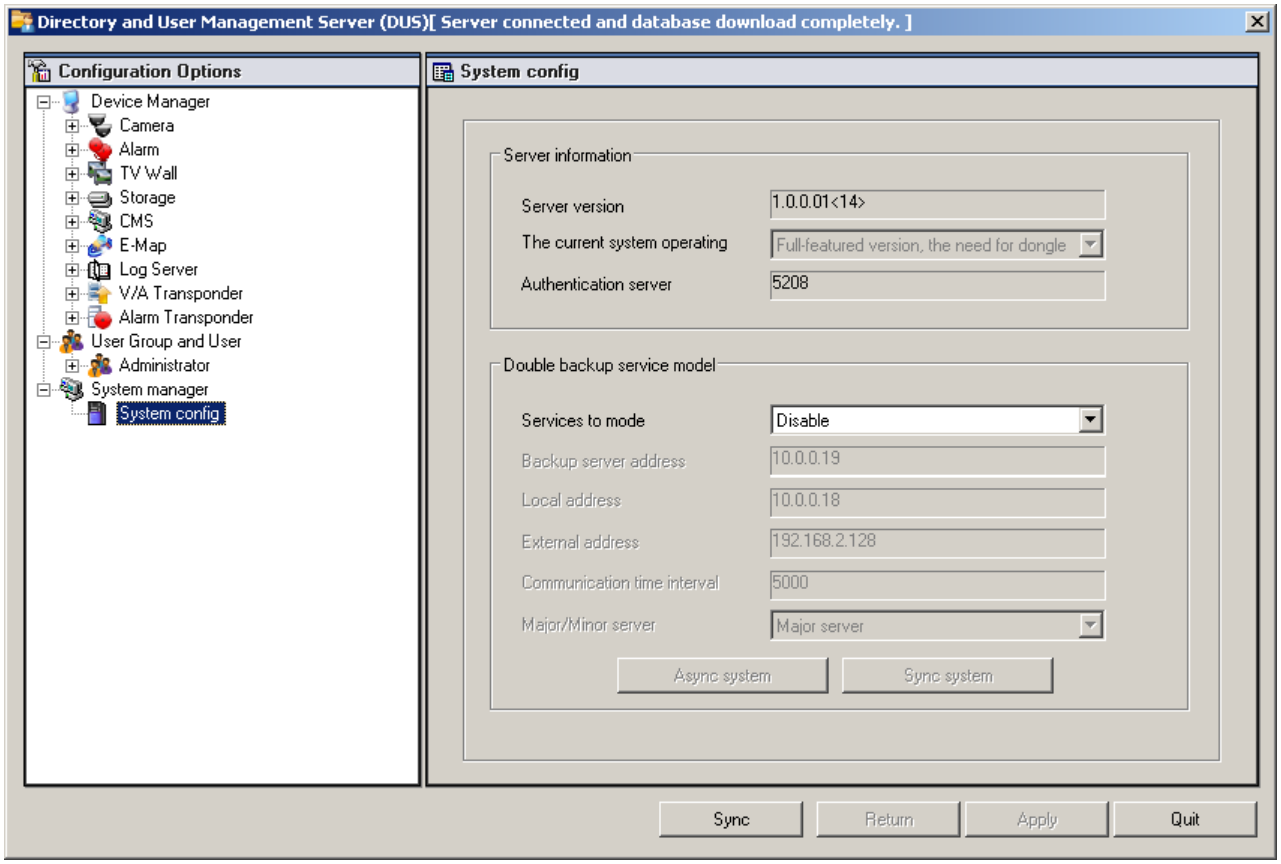


Figure 2-18

After any modification of the directory server, it is required to click “Synchronization” button. A serial of related software in the backend shall automatically download the modified information and log on again after receiving the synchronization signal.

Chapter 3 Management Control Center

Centralized management platform is for real-time image viewing and frontend device controlling. The authorized user that logs on the directory server is utilized by the centralized management platform to obtain the video cameras and devices that the user has the authorization to view and manage. It is able to view images in real-time, control pan/tilt and lens remotely, and carry out the operations, like frontend device parameter configuration, monitoring status, viewing event and log, and phonetic talkback, etc.

Click the shortcut icon

on the desktop to enter the centralized management platform.

3.1 Introduction to Main Human Interface

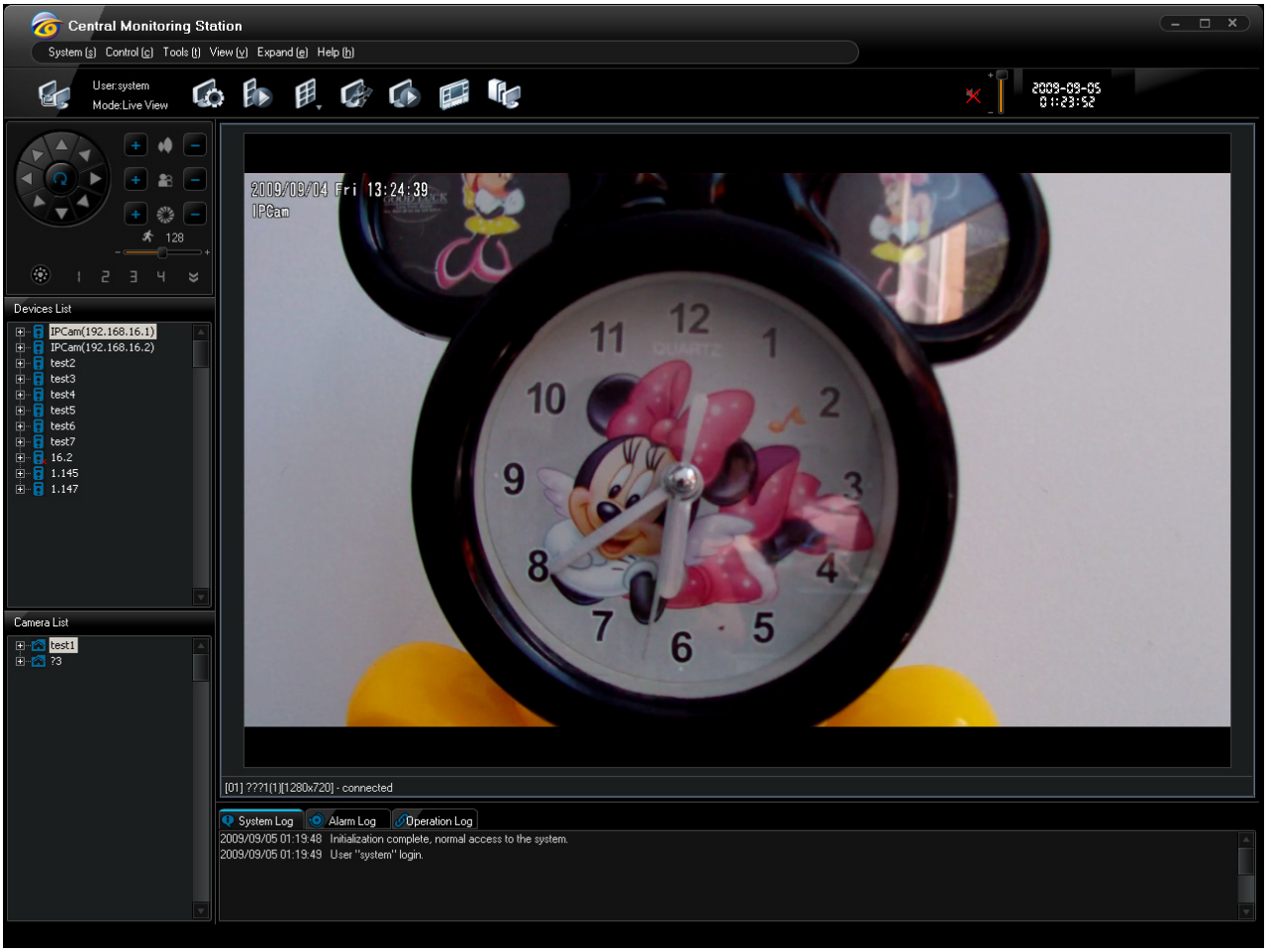


Figure 3-1

The main human interface of the management center system can be divided into the following areas:

- Menu bar: Frequently used operations can be found here, as in Figure 3-2.

Figure 3-2

- Toolbar: Frequently used tools and buttons are displayed in the toolbar, as well as the current user (status) and clock, as in Figure 3-3. User can use shortcut keys to log on the directory server to switch user, configure the system of local machine, and display the preview window. Shortcut keys can also be used to switch between multiple windows, display in full screen, switch players, switch emulated TV walls, and display the status of the server devices.

Figure 3-3

- Display area: Window splitting and image invoking, as in Figure 3-4.

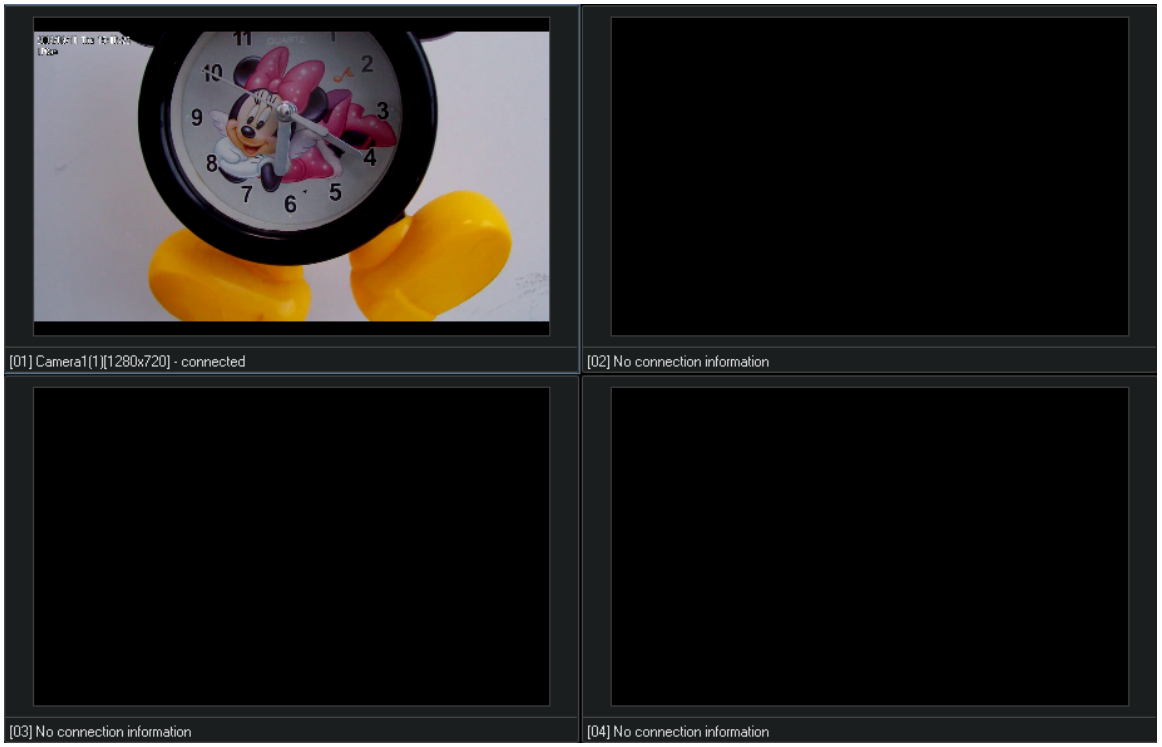


Figure 3-4

- Control area: PTZ pan/tilt and lens control, directory tree of video cameras and video camera preview grouping, as in Figure 3-5.

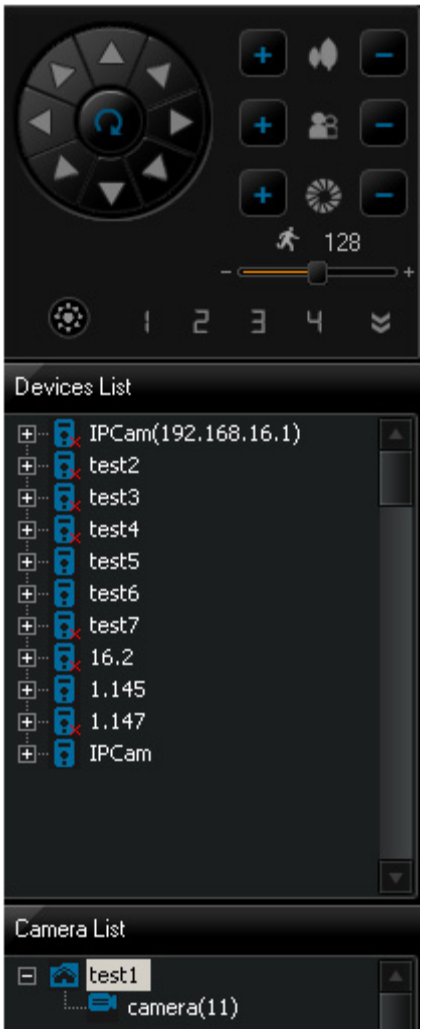


Figure 3-5

- Log area: The lists of system log, alarm log and operation log are included, as in Figure 3-6.

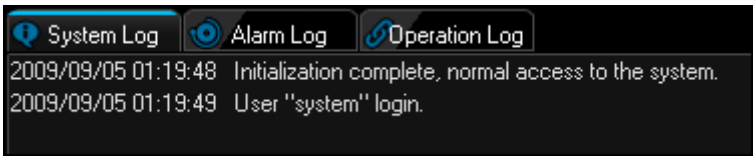


Figure 3-6

3.2 Video Viewing and Pan/tilt and Lens Controlling

After an authorized user logging on the directory server, the system can automatically obtain the list of video cameras that the user has the authorization to access and display the list in the directory tree window on the left. Select one camera from the directory tree and then press the left key of the mouse to drag it into any window in image display area on the right so as to view the image of this video camera; or select a window and then double click any video camera in the directory tree to view the video image in this window.

Select any window to control the pan/tile and the lens, adjust the speed of the pan/tilt, assist on-off control or invoke pre-set points.

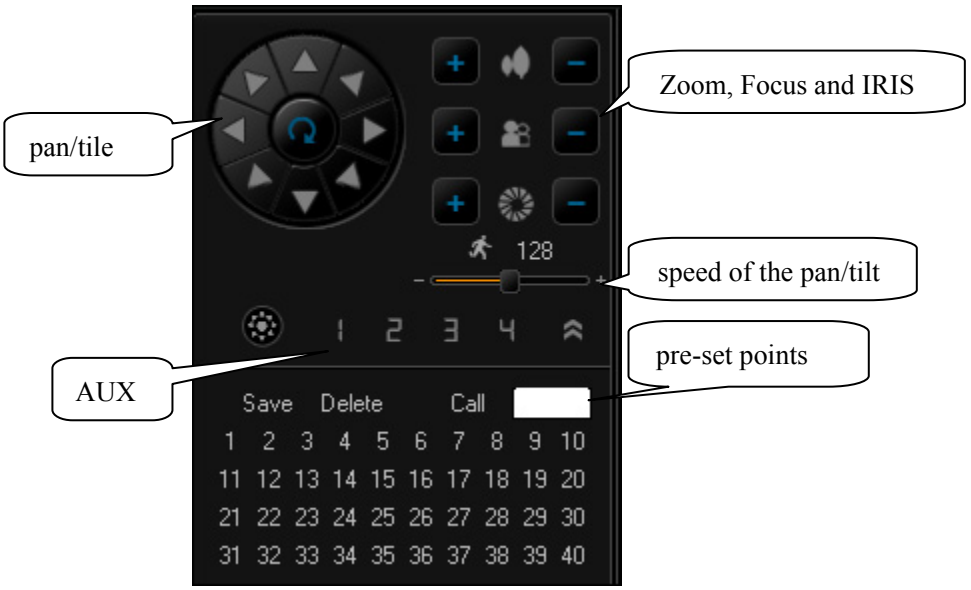


Figure 3-7

3.3 Video Camera Grouping and Video Group Switching

In the configuration for centralized management platform – tool –directory center, video camera grouping can put several video cameras into one cyclically sequential group for video camera so that the group can be invoked directly from the preview group tree at the left bottom of the directory tree. Video group switching of video cameras is materialized, as in Figure 3-8.

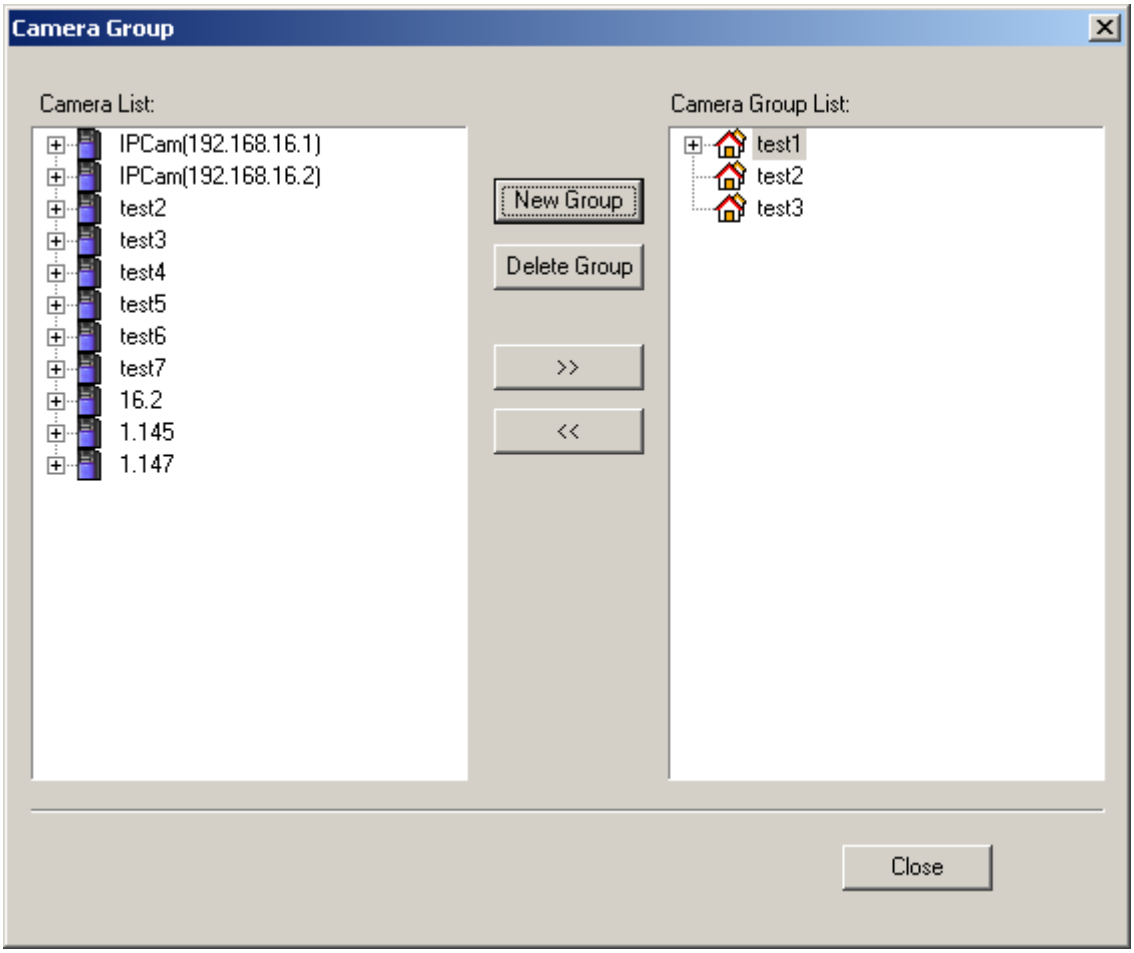


Figure 3-8

Click a camera in the device manager. The “Create group” button shall appear in the list on the right. After Clicked, it is able to create new cyclically switching group and the cameras in the group. Click “New group” to create the name of a video camera group and then click “>>” or ”<<” button to add or delete any video camera in the list on the left into the selected video camera group.

3.4 Intercom

Select “Intercom” from the menu by right clicking mouse in a video window to set up the talkback with frontend devices of this window.

Figure 3-9

The talkback devices added individually into the directory server can also work in a video window. Right click mouse at any position in the video area, pop up the menu, and move the mouse to “Intercom with current device” to select a device for talkback.

A dialog shall be popped out by the system during the Intercom, as in the figure bellow, that is the communication during Intercom.

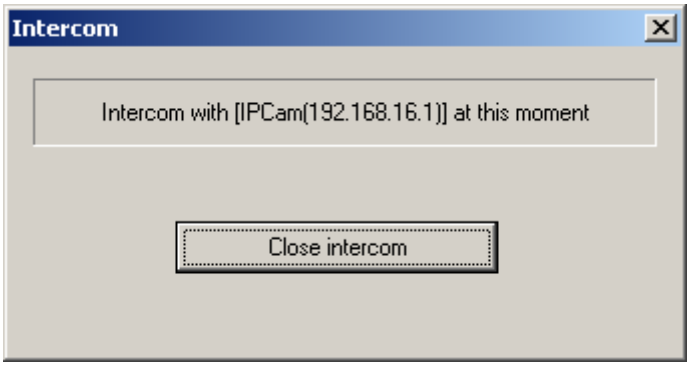


Figure 3-11

3.5 Video Recording System

Under authorization, the system can support users to start manually remote recording. Right click in the video window for video recording and select “Start local recording” from the popup menu to start real-time recording in the current window.

Select the menu “Tool”, “System Configuration” and “Recording” to configure the parameters for recording. It is able to set the hardware disks on the current host machine for storage of recorded video files. The time for packaging the video files can also be set (1 – 60 minutes optional). The default is 2 minutes per file, as shown in the figure bellow.

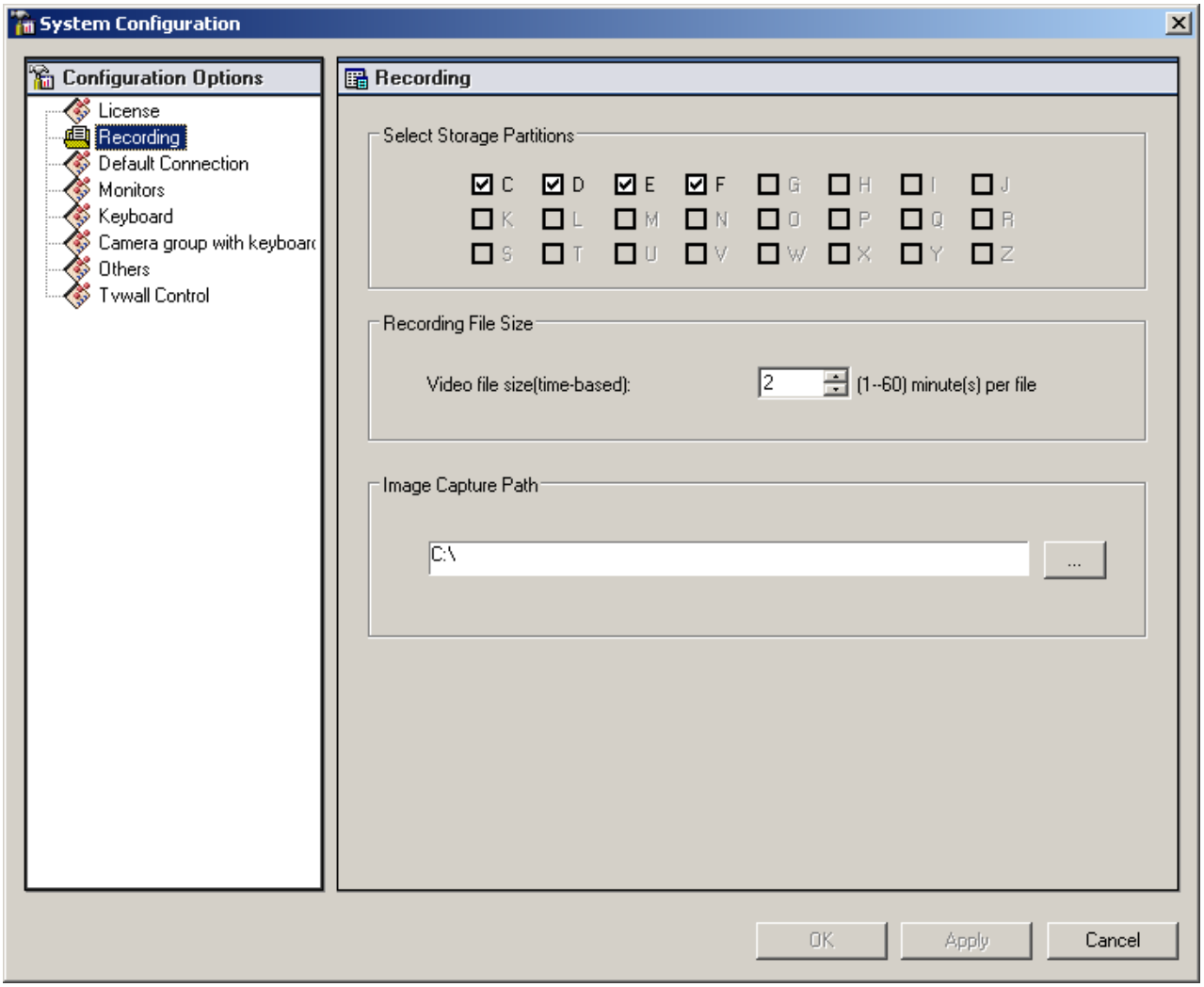


Figure 3-12

3.6 Device Status

Click to select “Device status” button on the toolbar to open monitoring panel of device status. The system can automatically collect the working status of all frontend devices and server hosts, according to the configured time interval so as to instantly detect any malfunction in the network and on the server hosts and then send alarms to solve any problem. It is able to detect online status of all devices at the monitoring substations in real time, dynamically detect the network bandwidth of connection channel, instantly discover any malfunction in the network and server hosts, and send alarm in time. Additionally, hardware information of remote host machines can be viewed; and the working status, recording status and alarming status of remote devices can also be displayed.

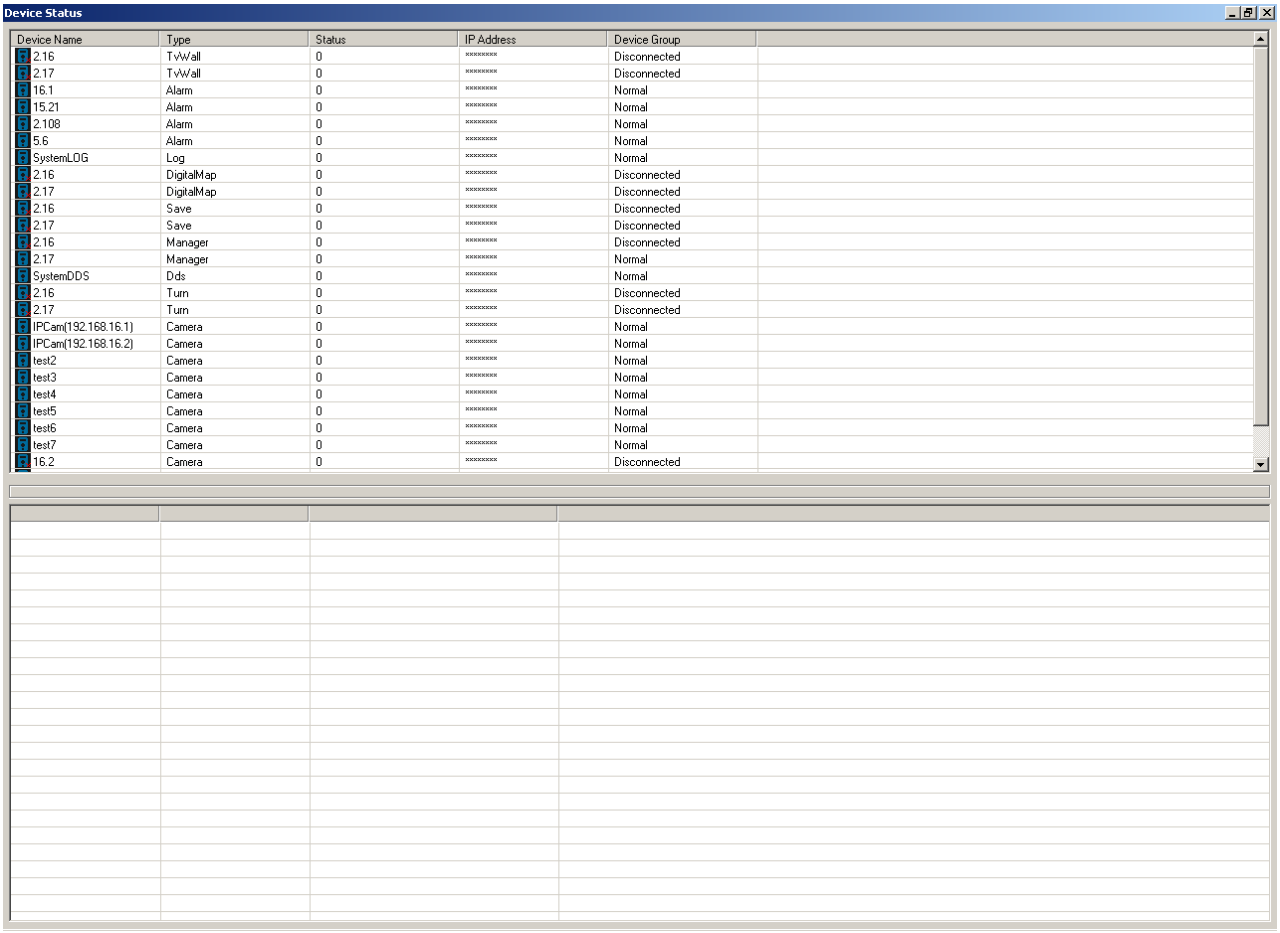


Figure 3-13

3.7 Log Viewing

The system can make queries to system log and alarm log of frontend devices by selecting query conditions. The query interface is shown in Figure 3-14.

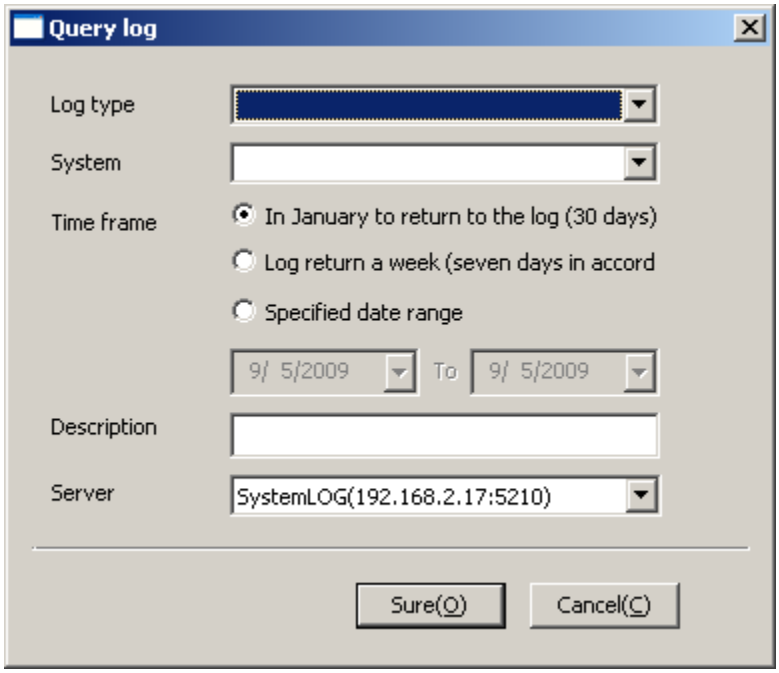


Figure 3-14

The interface for viewing the detailed log is as following:

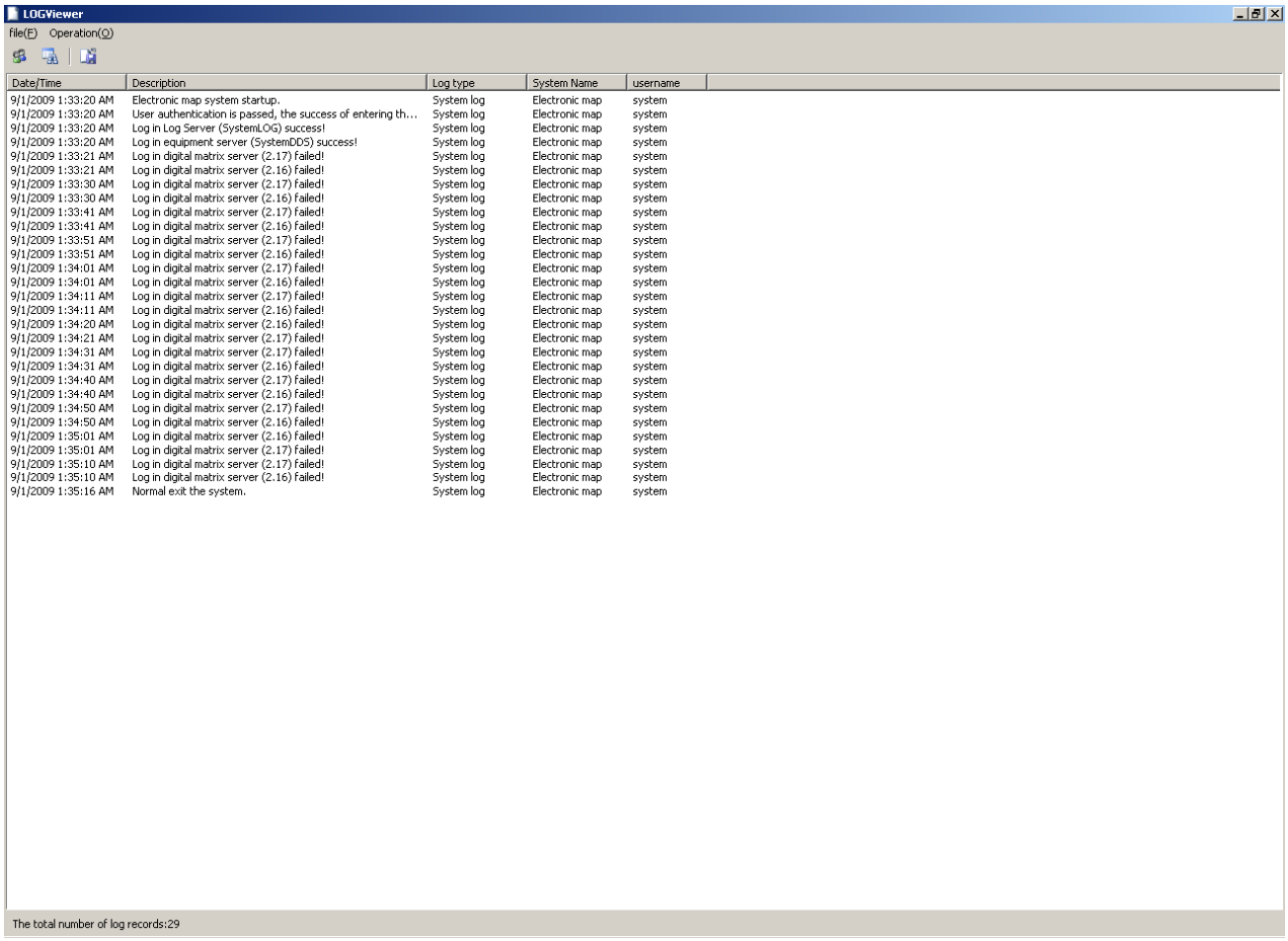


Figure 3-15

3.8 Other Parameter Configuration of System Setting

3.8.1 Default Connection

Default connection of self-defined window: select the menu “Tool” – “Setting” – “Default connection” to set up the video cameras connected with the system window by default. Next time, the system shall automatically view the default connection. It is able to set up the number of pictures and cameras that can be connected, shown as following:

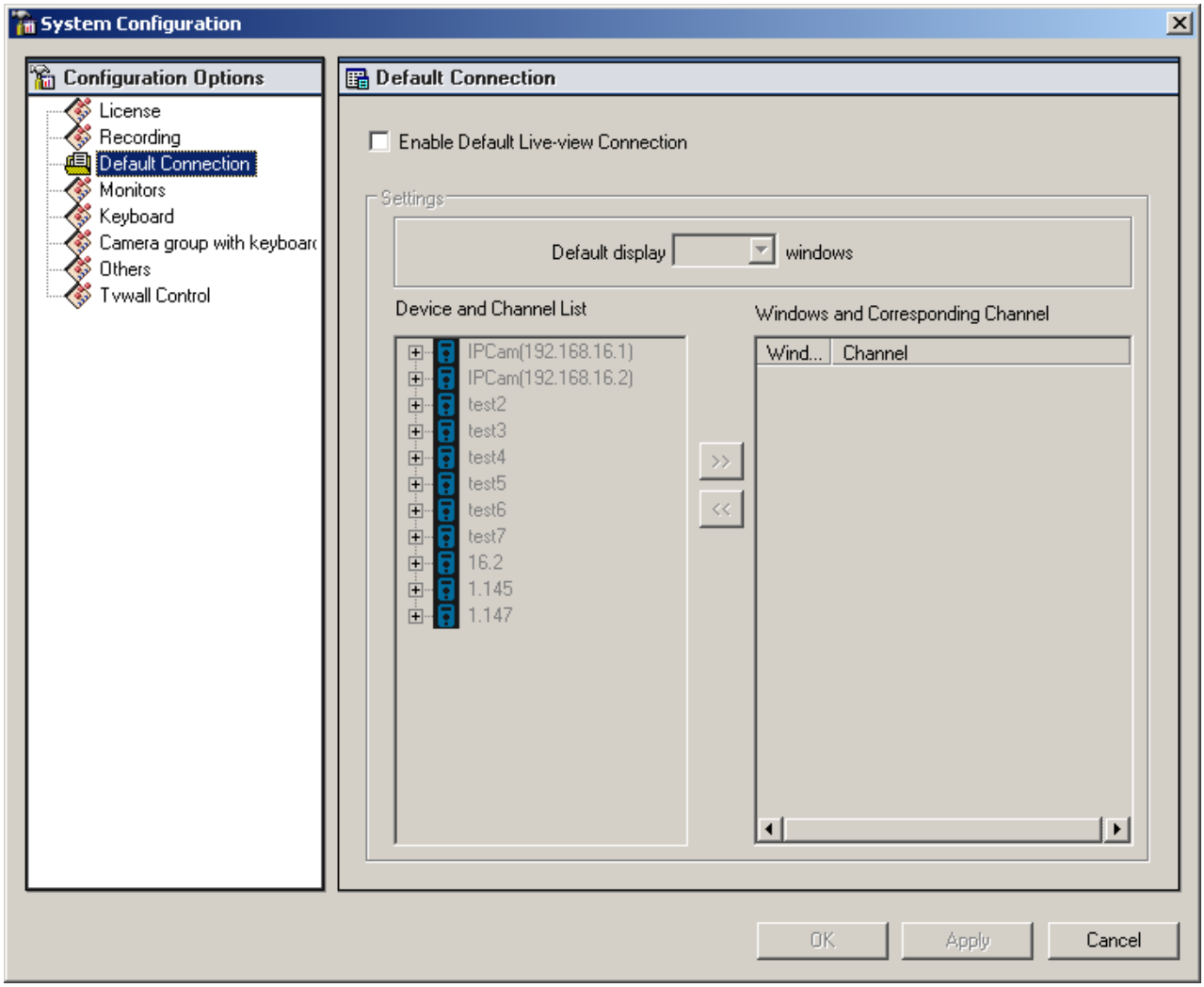


Figure 3-18

3.8.2 Display Screen Configuration

The display scale is adjustable by adjusting the coordination of display position.

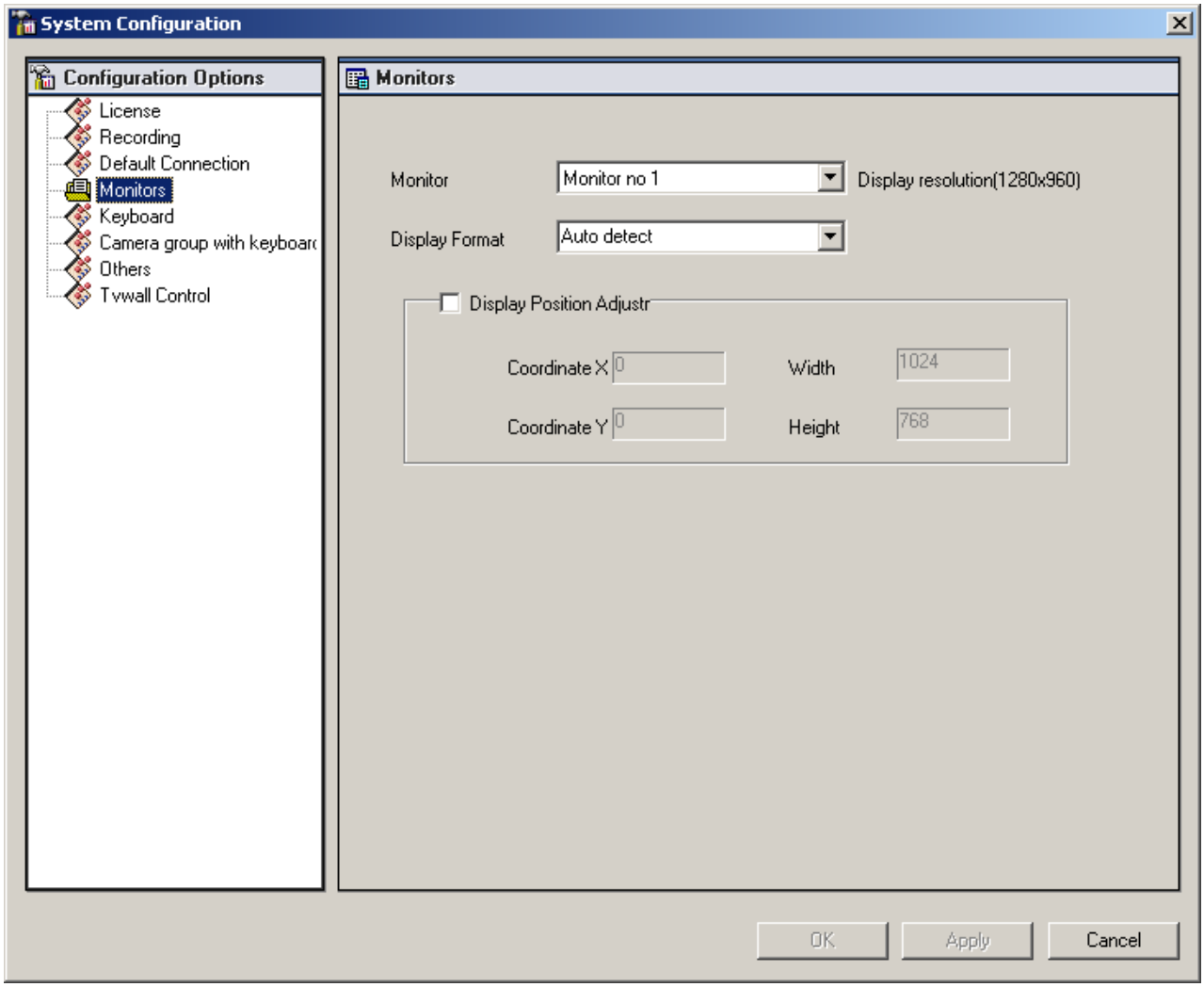


Figure 3-19

3.8.3 Video Recording Setting

Select the disk partition for recorded videos from this option by checking; and select the size of video file as well as the path for capturing pictures.

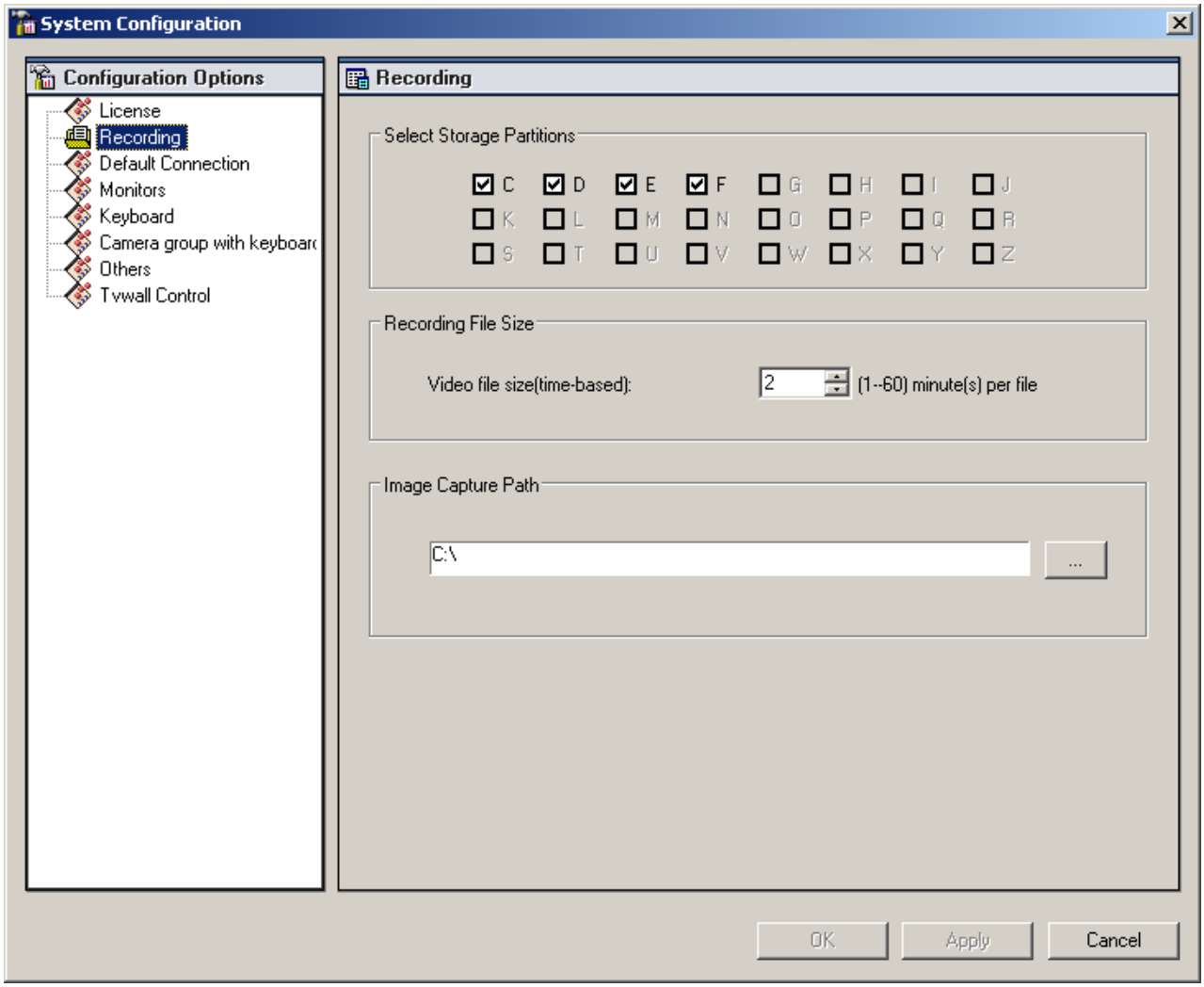


Figure 3-20

3.8.4 Keyboard Setting

If there are keyboards for frontend decoder and backend DVR, open this option to set up the serial port and baud rate.

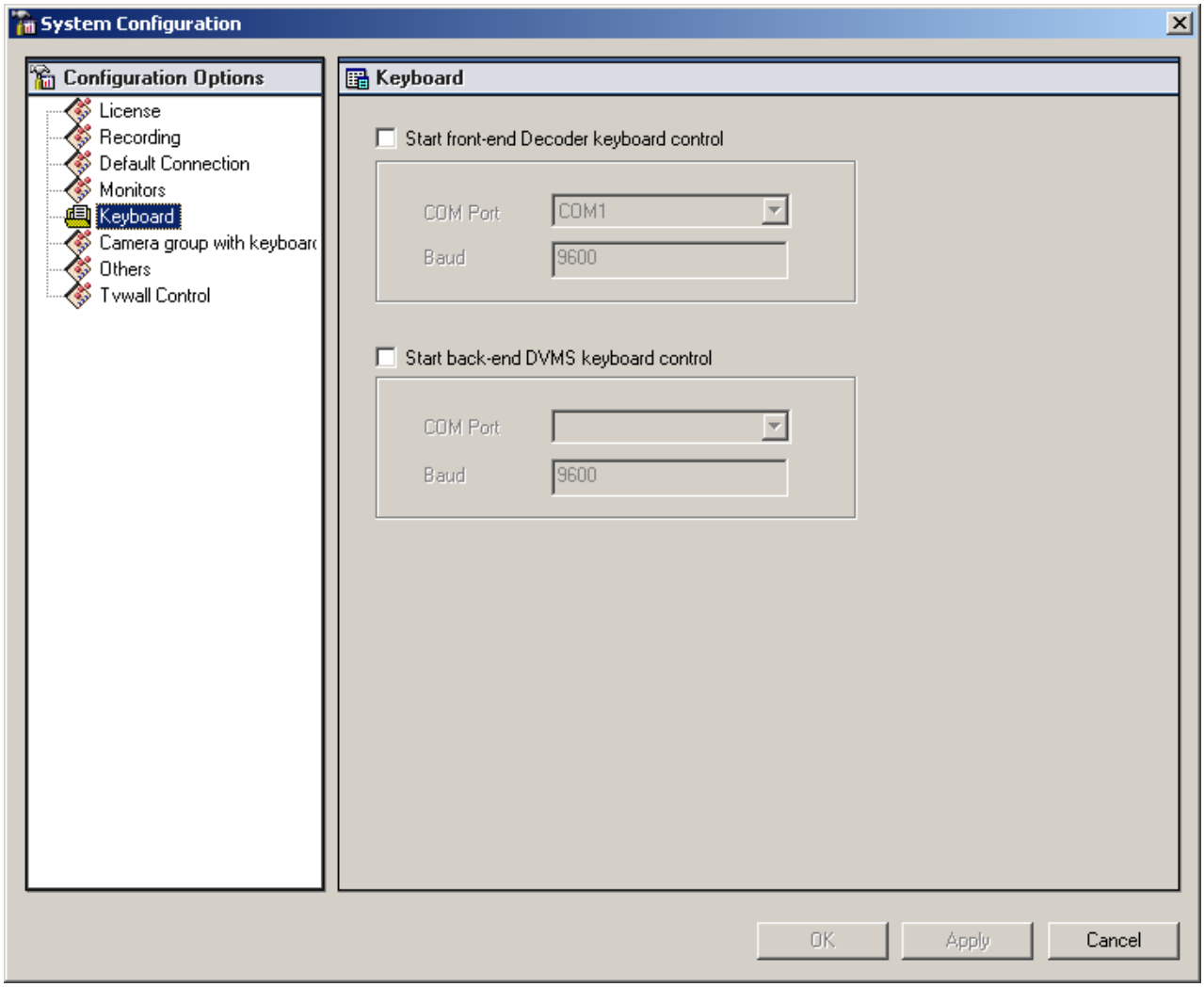


Figure 3-21

3.8.5 Keyboard Control Grouping

If there is any control keyboard connected externally, put the camera into a group.

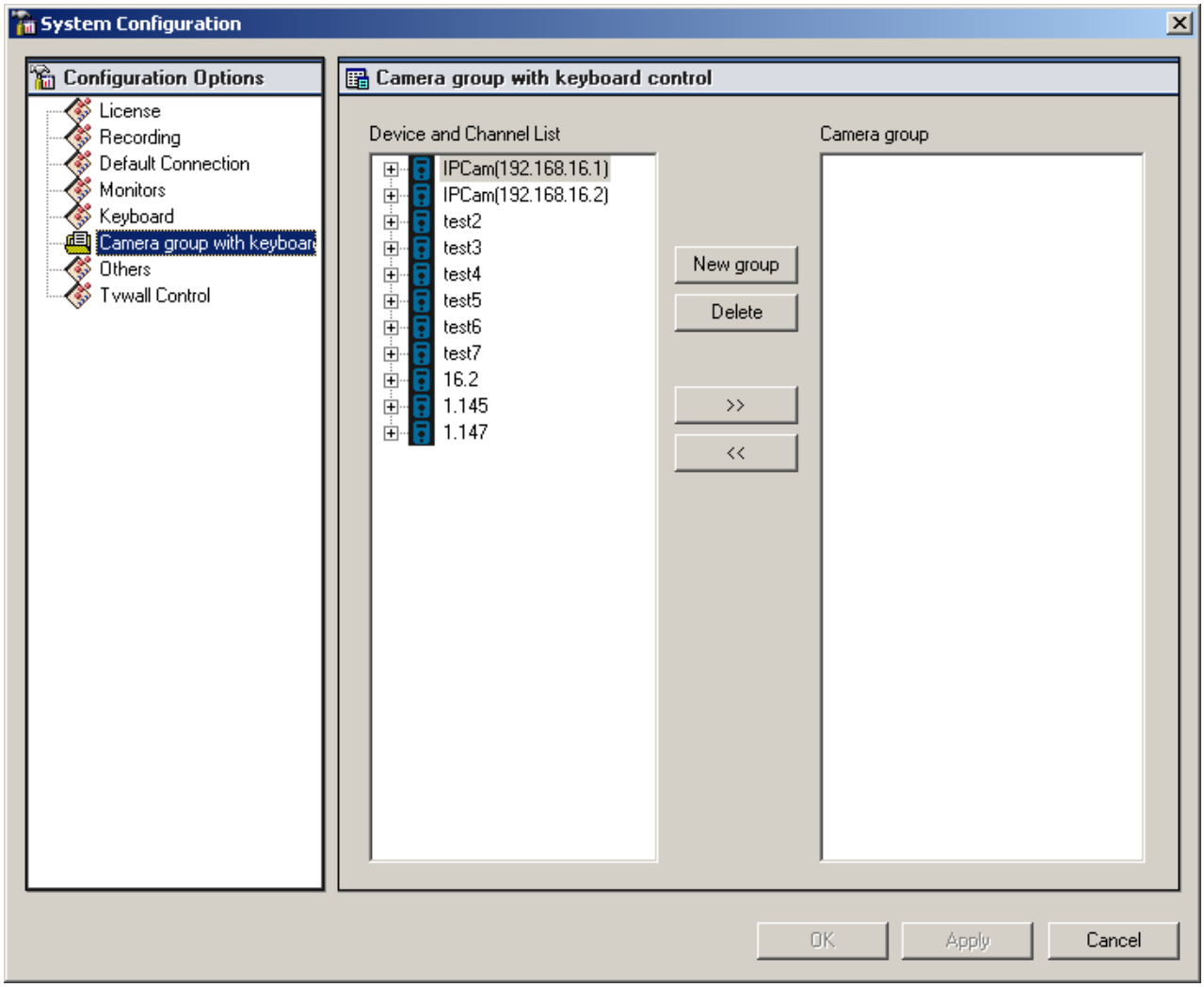


Figure 3-22

3.8.6 System Setting

Select the language (Chinese or English) needed by the system, whether to log on automatically when the system starts, the delay time for logon (5s – 30s), delay time of video camera group cyclically switching, and whether to automatically switching video windows when previewing video cameras by group.

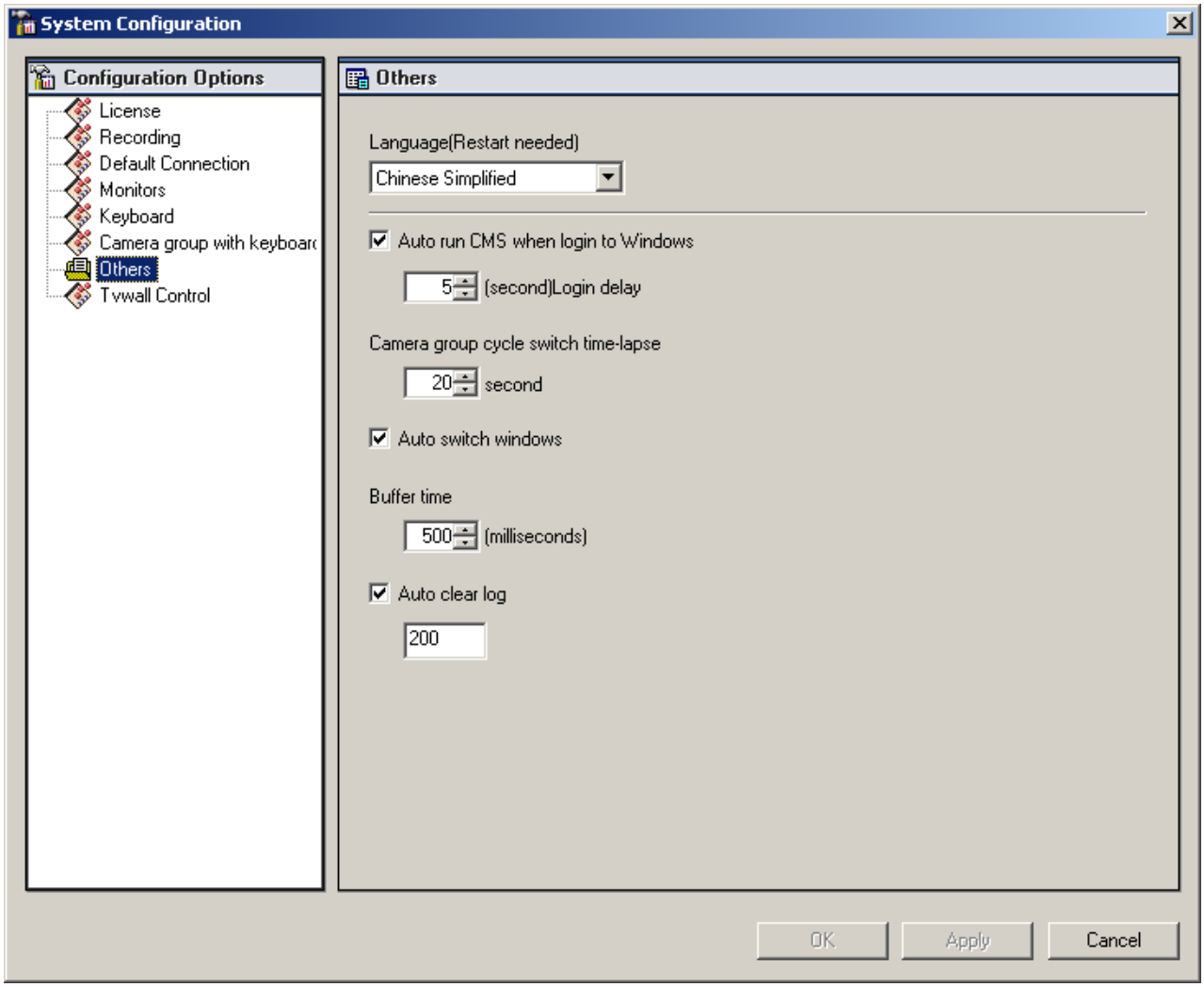


Figure 3-23

3.8.7 TV Wall Control Setting

Here is to set up the cyclically switching time for video cameras on the TV wall.

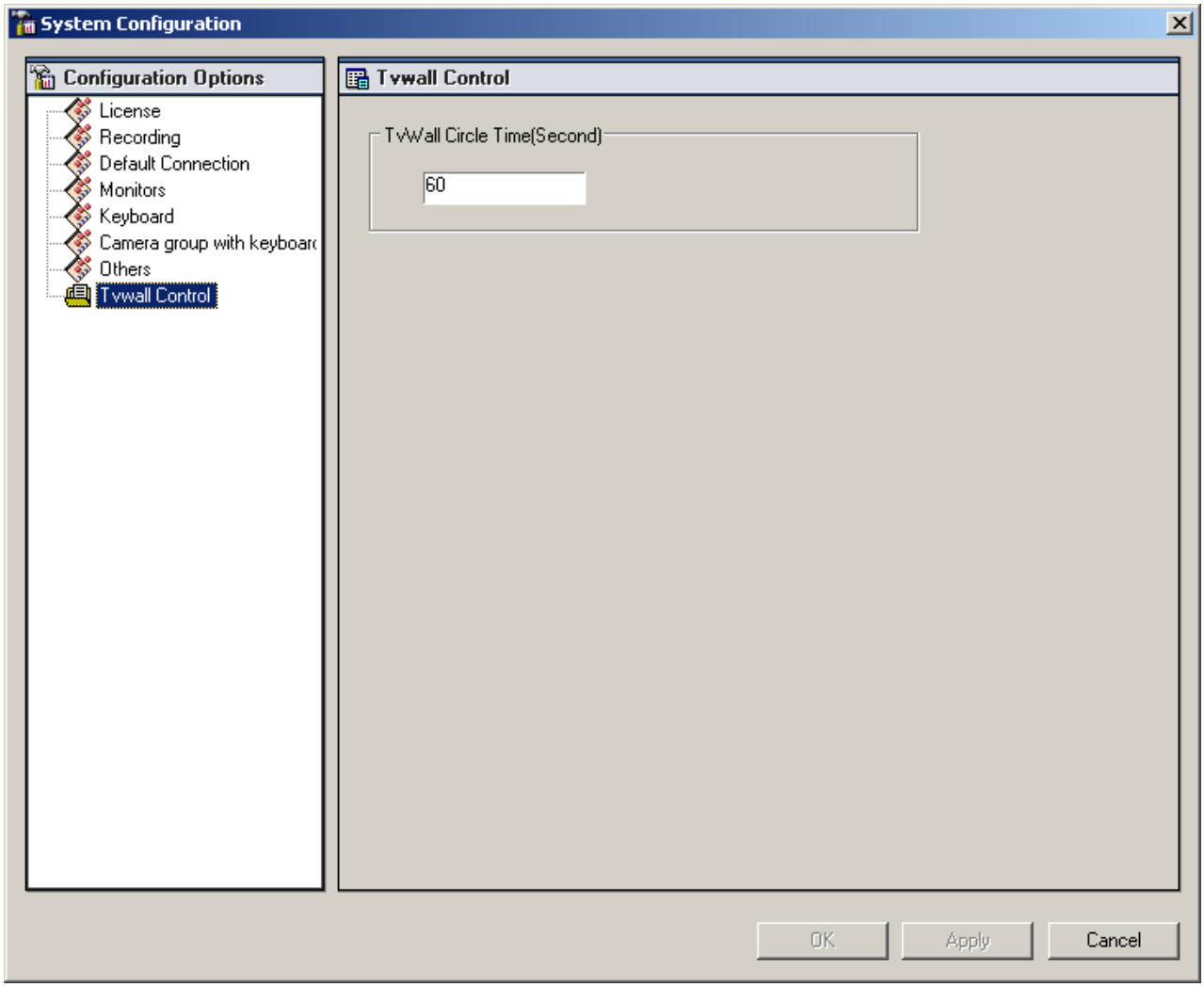


Figure 3-24

3.9 Remote Parameter Setting

3.9.1 User Management

Users can be added and deleted here. It is also able to change password and select authorization.

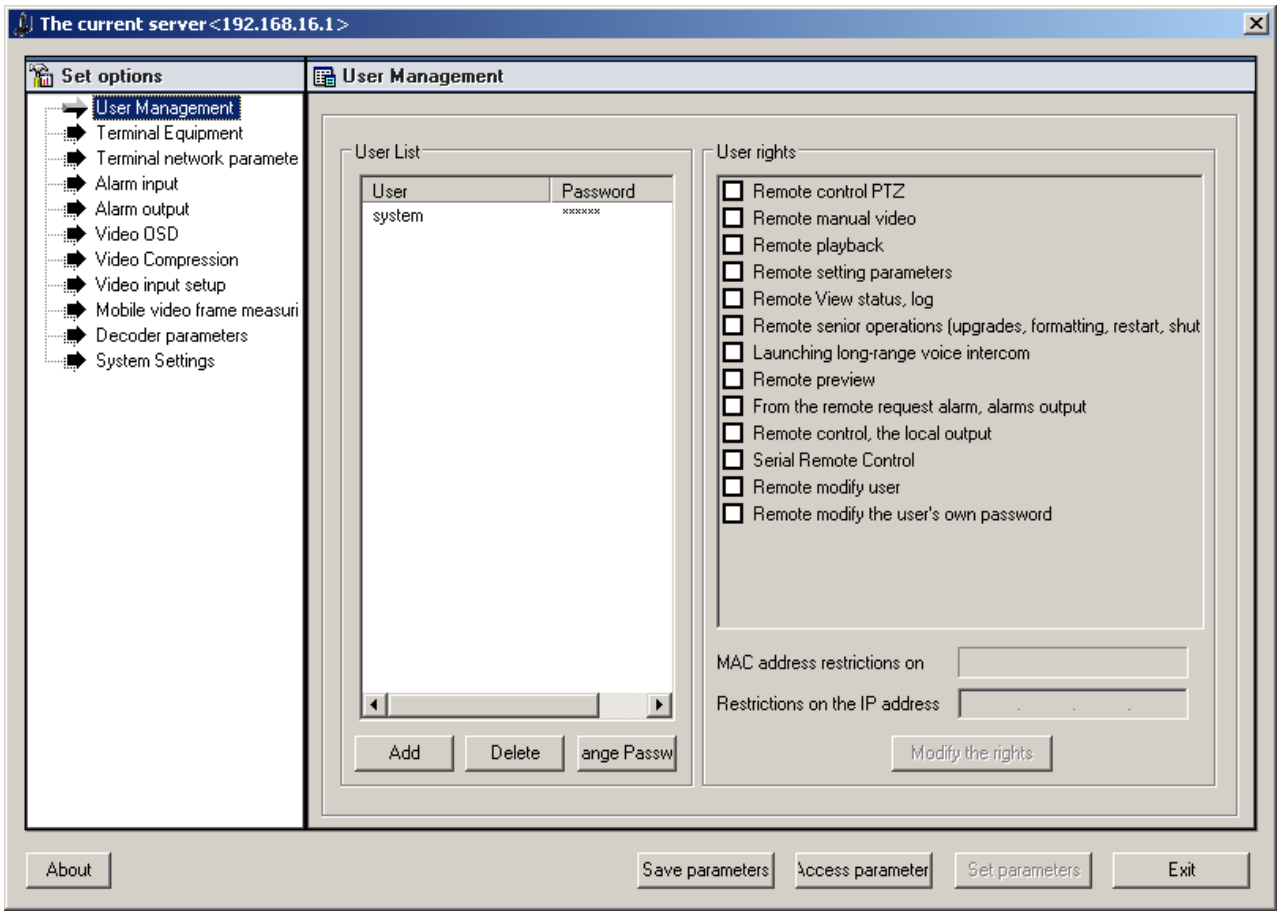


Figure 3-25

3.9.2 Terminal Device

Select a video window and choose Menu bar – Control – Remote parameter setting, or right click in a video window to choose Remote parameter setting to enter the Remote parameter setting interface of the current server. In the interface, the name of the current server, ID of remote control, video system (PAL or NTSC optional), shall be displayed. It is also able to choose whether to record cyclically and whether to enable phonetic talkback, as shown in Figure 3-26.

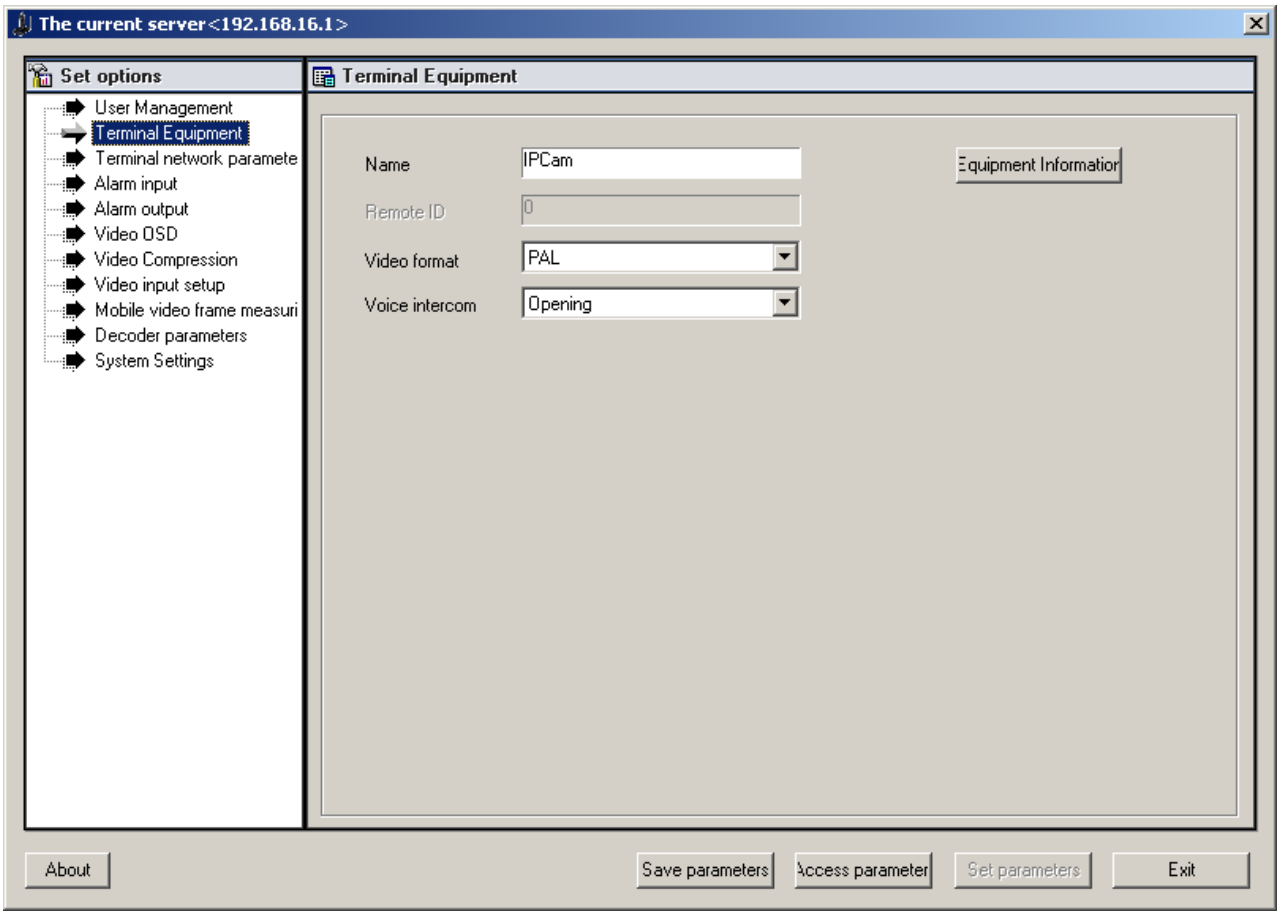


Figure 3-26

Click “Device information” button to display the detailed information of terminal devices, as in Figure 3-27.

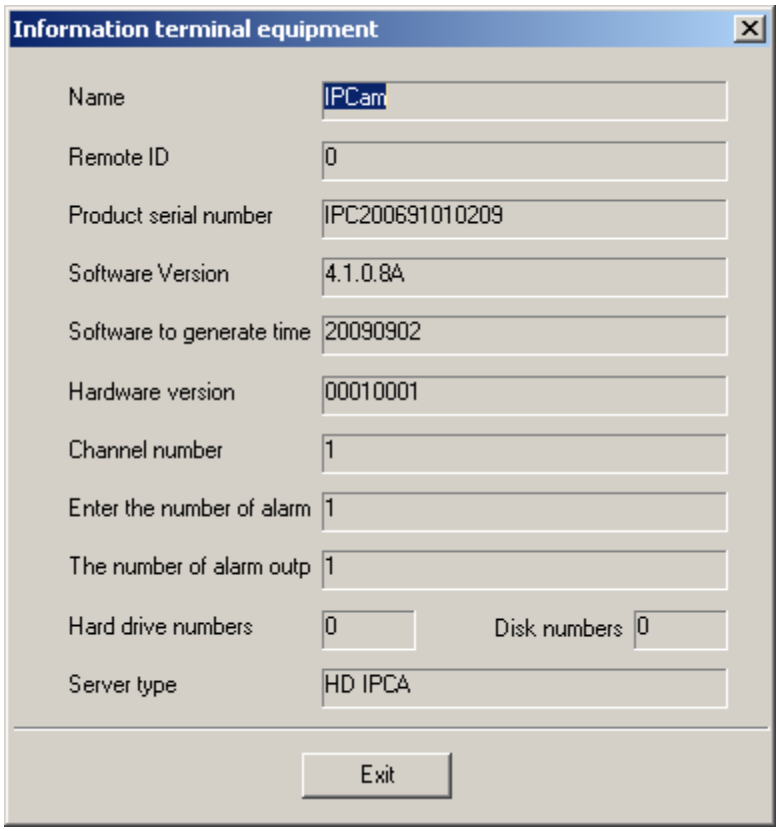


Figure 3-27

3.9.3 Terminal Network Parameter

This page shall display network parameters of terminals, e.g. network port, listening port of the server, DNS host address, and whether to enable remote management center, etc., as shown in Figure 3-28.

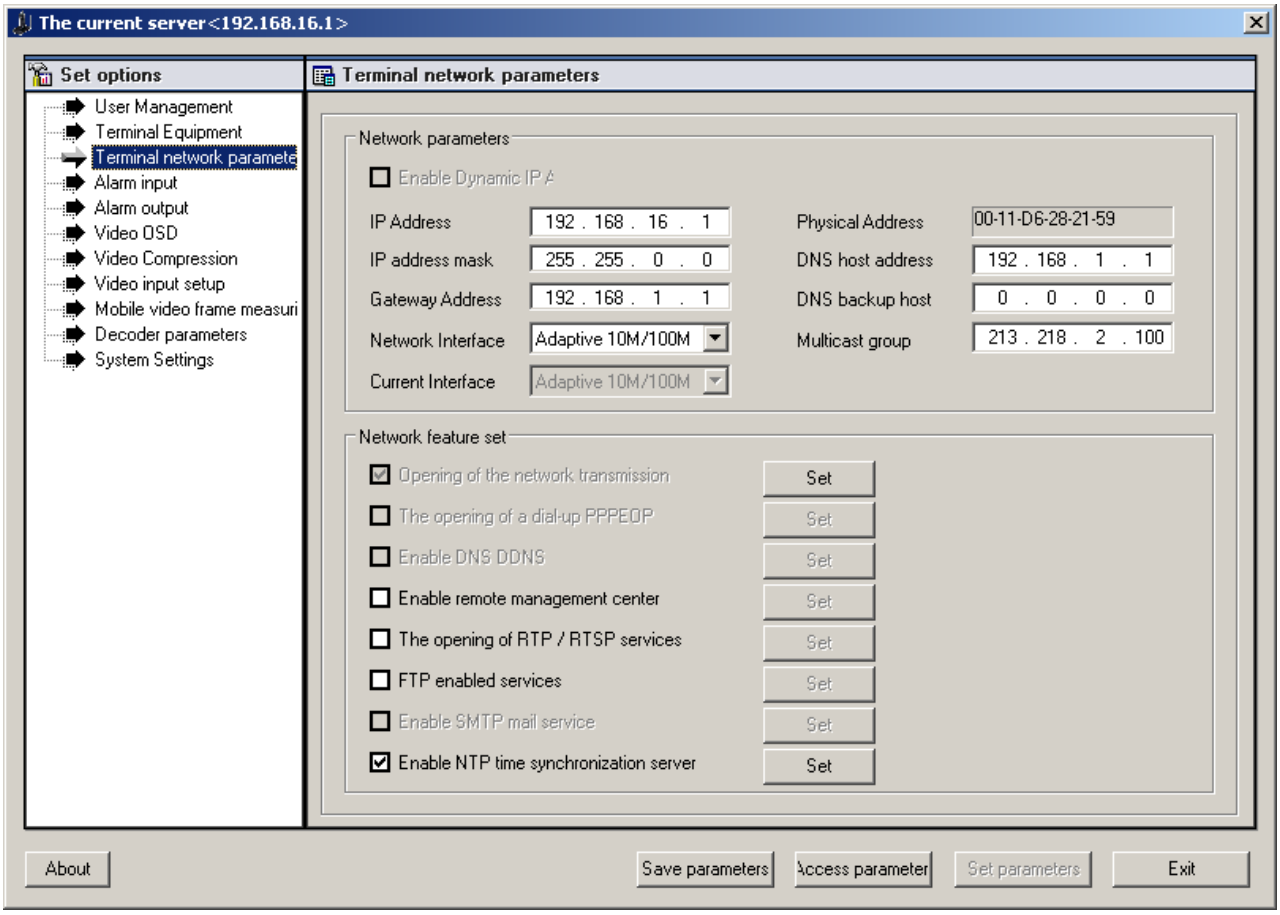


Figure 3-28

3.9.4 Alarm Inputting

When there is any alarm inputting, here is to set up alarm type (normally open or normally close) as well as whether to process the alarm signal or not. The method and time are set up if the alarm signal should be processed.

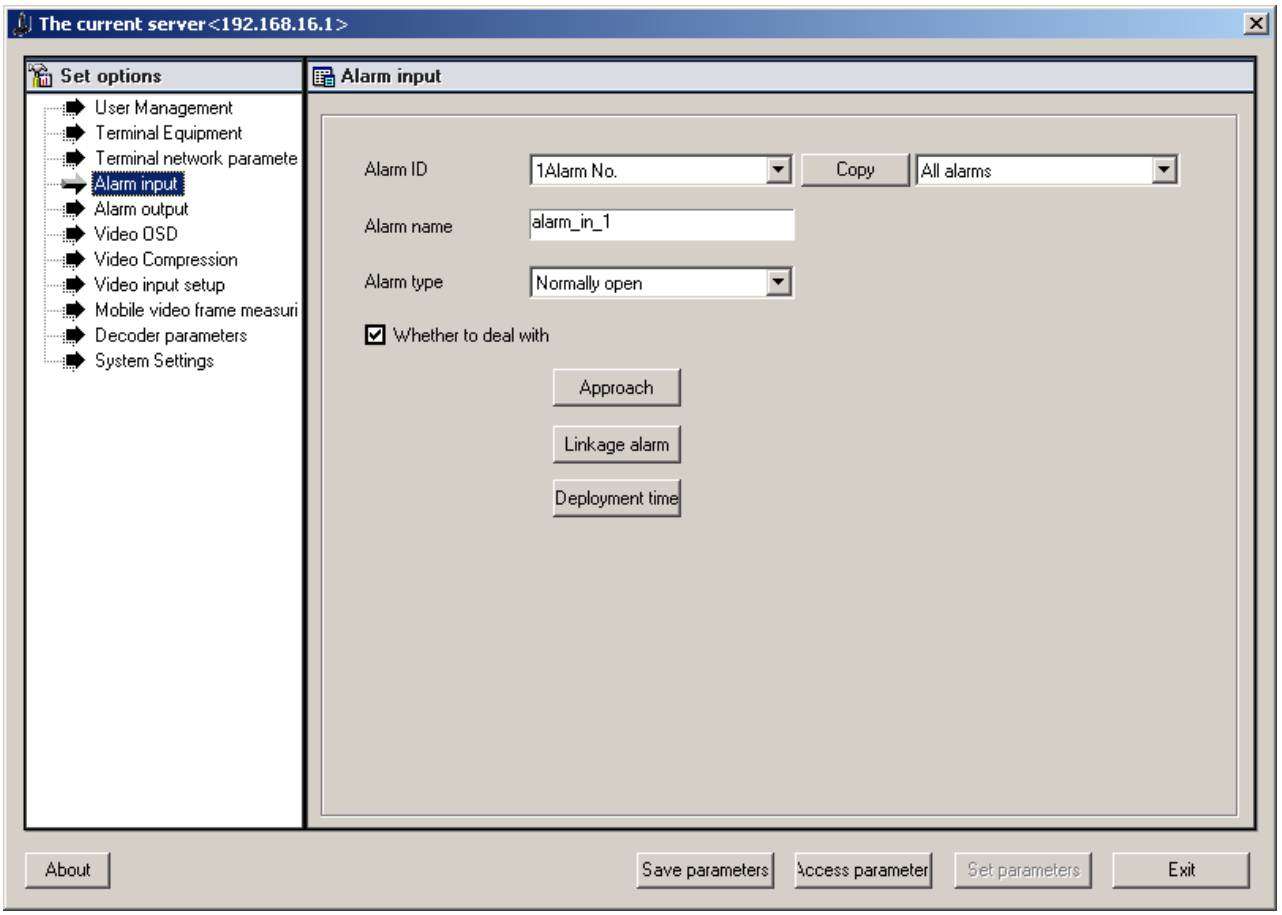


Figure 3-29

Alarm processing method can choose from warning in a monitor, sound warning, uploading to the management center, and triggering the alarm output processing method. The interface is as shown in Figure 3-30.

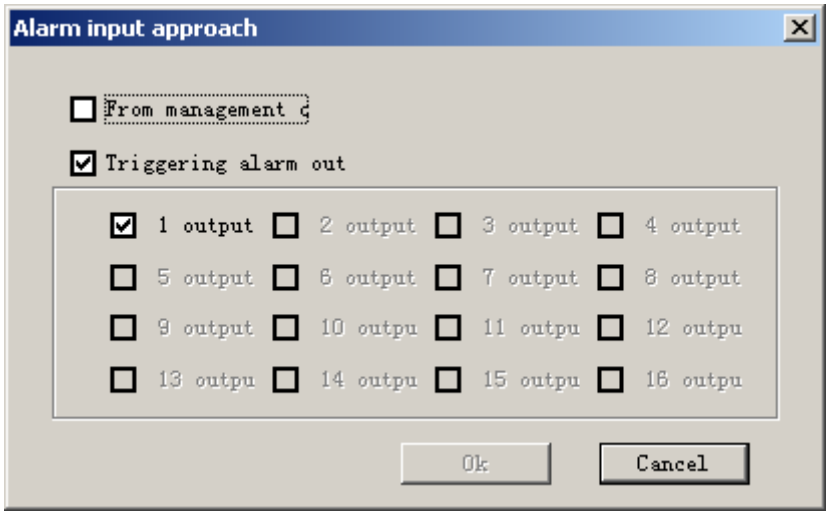


Figure 3-30

Linkage Alarm processing interface is to select pre-set point controlling and whether to record or not.

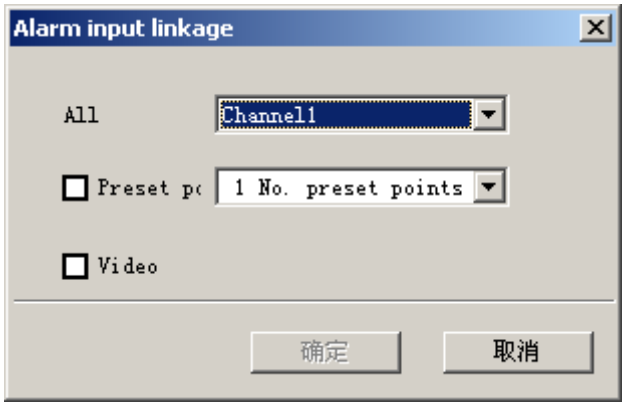


Figure 3-31

Setting of time for alarm inputting protection deployment: To set up the start and end time of each weekday in a week. It is able to add any time period in a day. If there is a same time period for each weekday, the setting can be copied. Time periods can be added, changed and deleted. The interface is as in Figure 3-32.

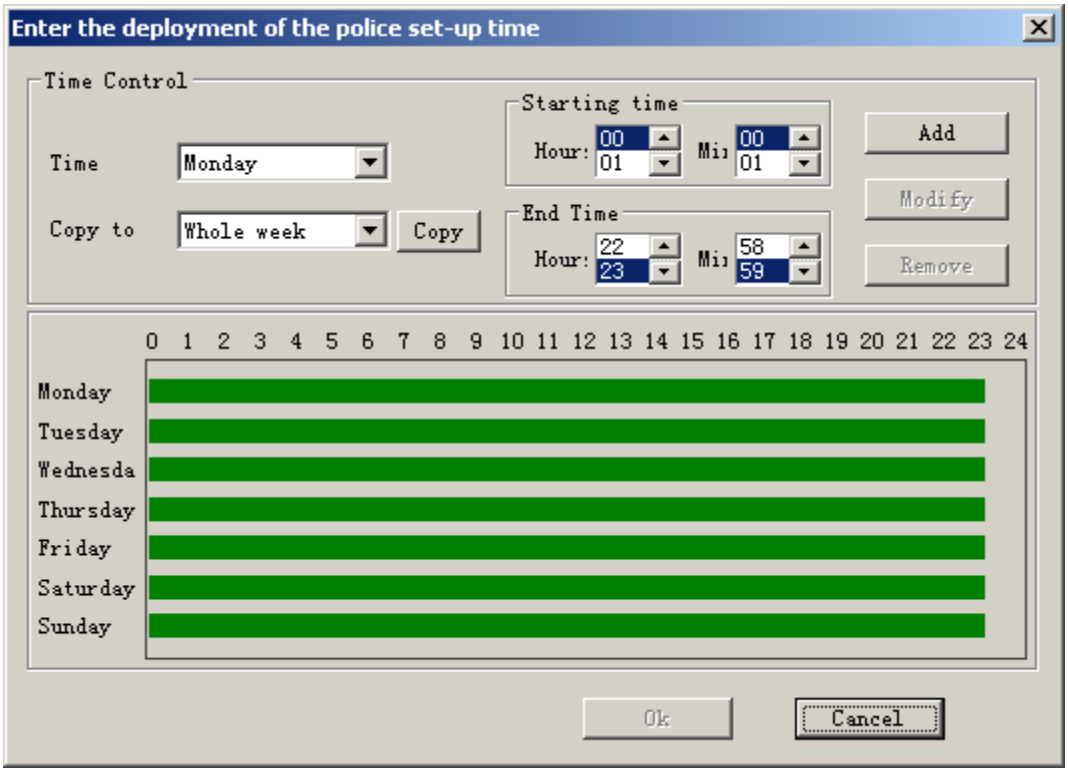


Figure 3-32

3.9.5 Alarming Output

In the settings for alarm output, it is able to set up the delay time for alarm output, and the time period for protection deployment (settings are same as that of alarm input).

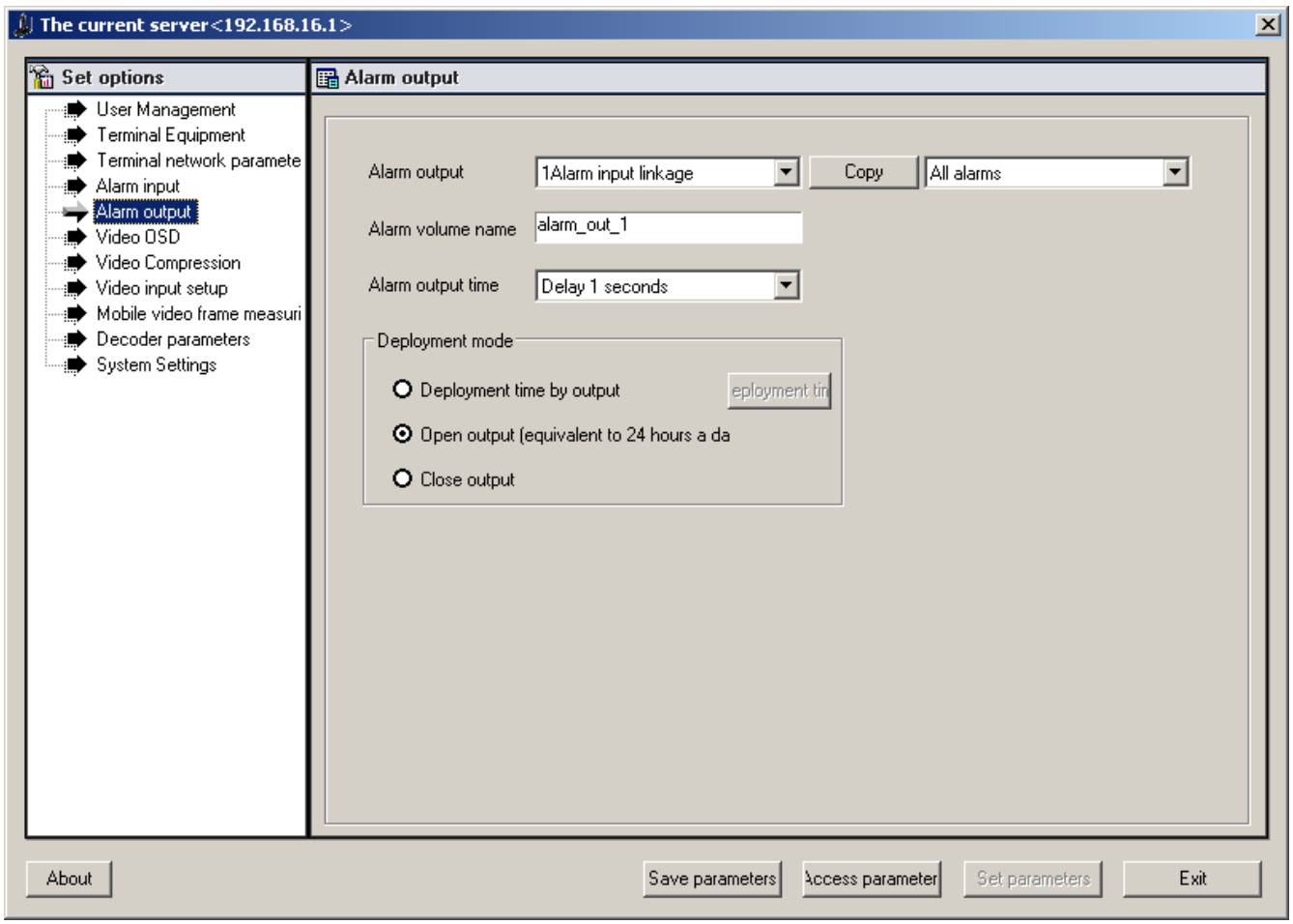


Figure 3-33

3.9.6 Remote Recording

Here to select whether to enable frontend devices for recording, select recording time and obtain disk information etc.

3.9.7 Video Image OSD

In the settings for video image OSD, it is able to select whether to overlap date and time, whether to display weekday, and whether to overlap channel name, etc.

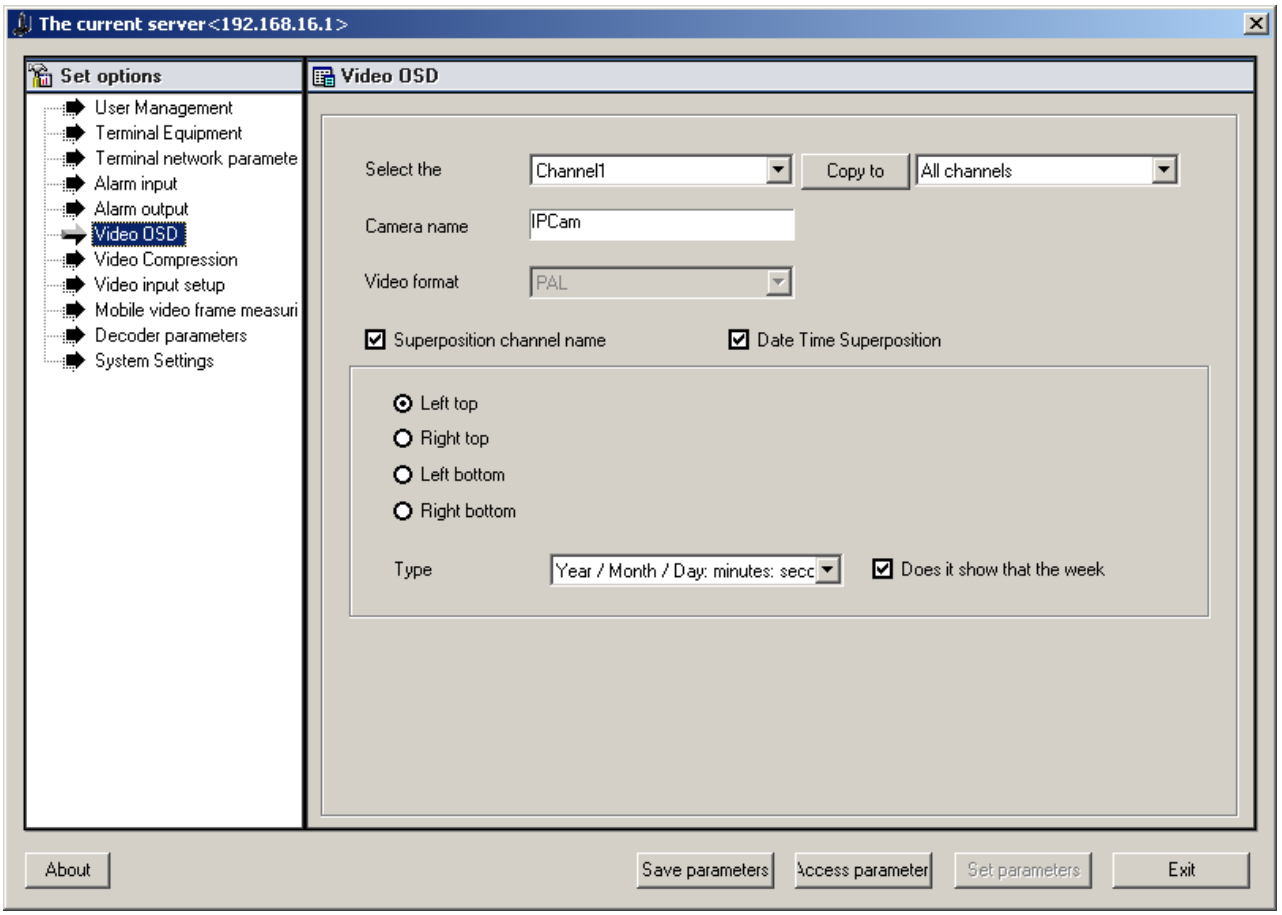


Figure 3-35

3.9.8 Video Compressing

Settings for video compressing are to set up the parameters of main code-stream and auxiliary code-stream, as in Figure 3-36.

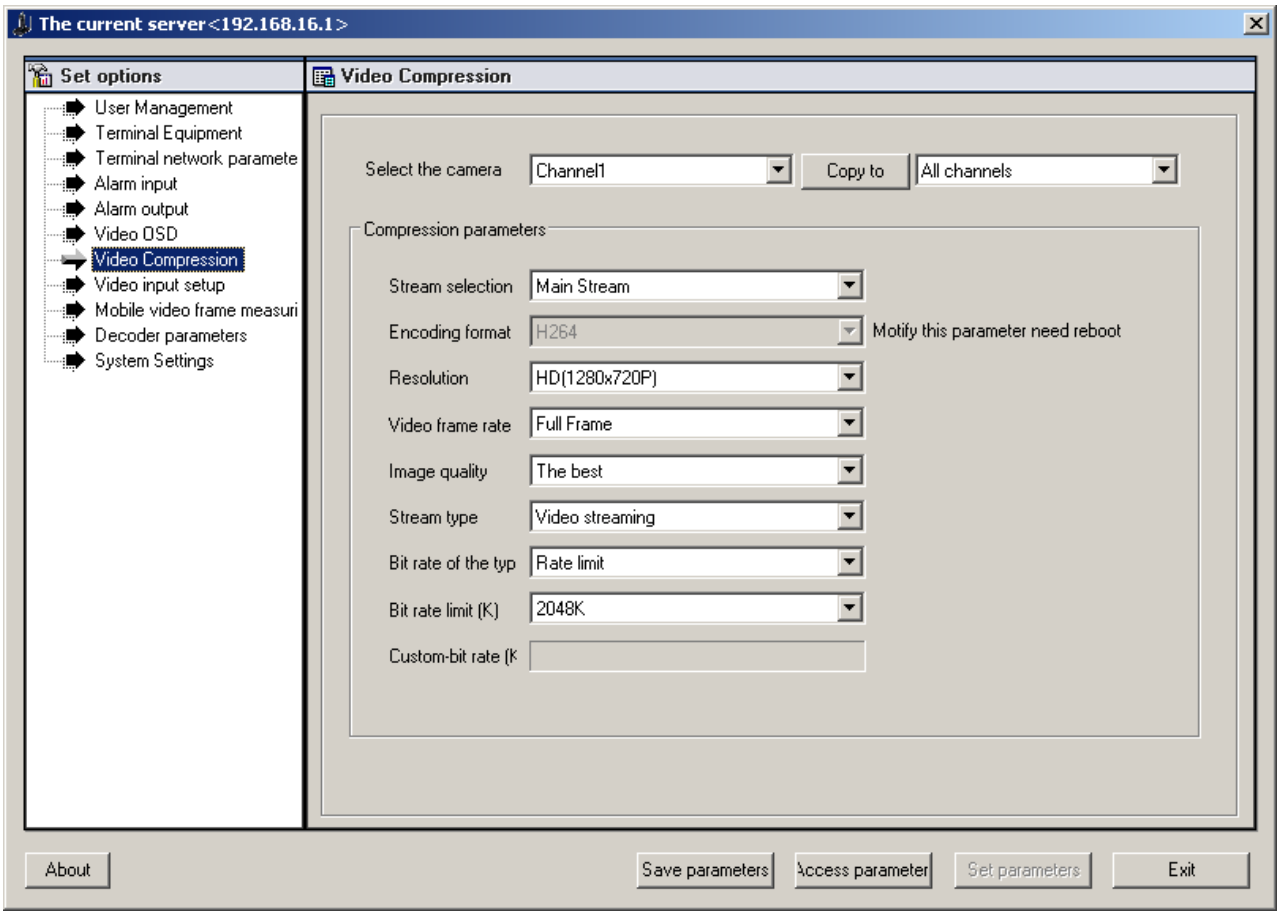


Figure 3-36

3.9.9 Video Input Configuration

Video input configuration is to set up video input anti-flickering mode for, video color mode, image rotation, color to Day-Night mode (Color to black), and electronic shutter, etc.

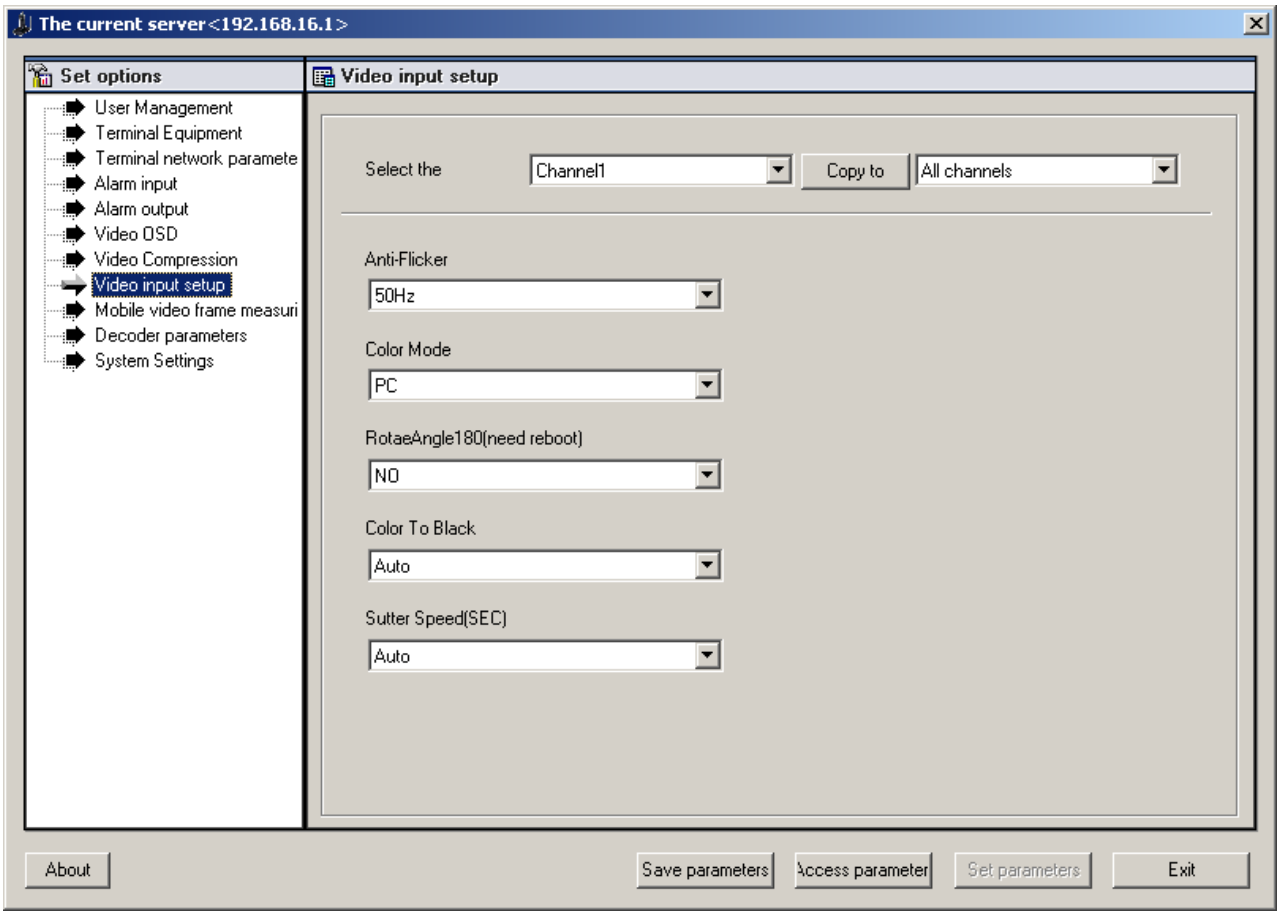


Figure 3-37

3.9.10 Video Motion Detection

In the configuration of protection area of video motion detection, it is able to select processing method of motion detection and whether to adopt Linkage Alarm, and to set up the time for protection deployment.

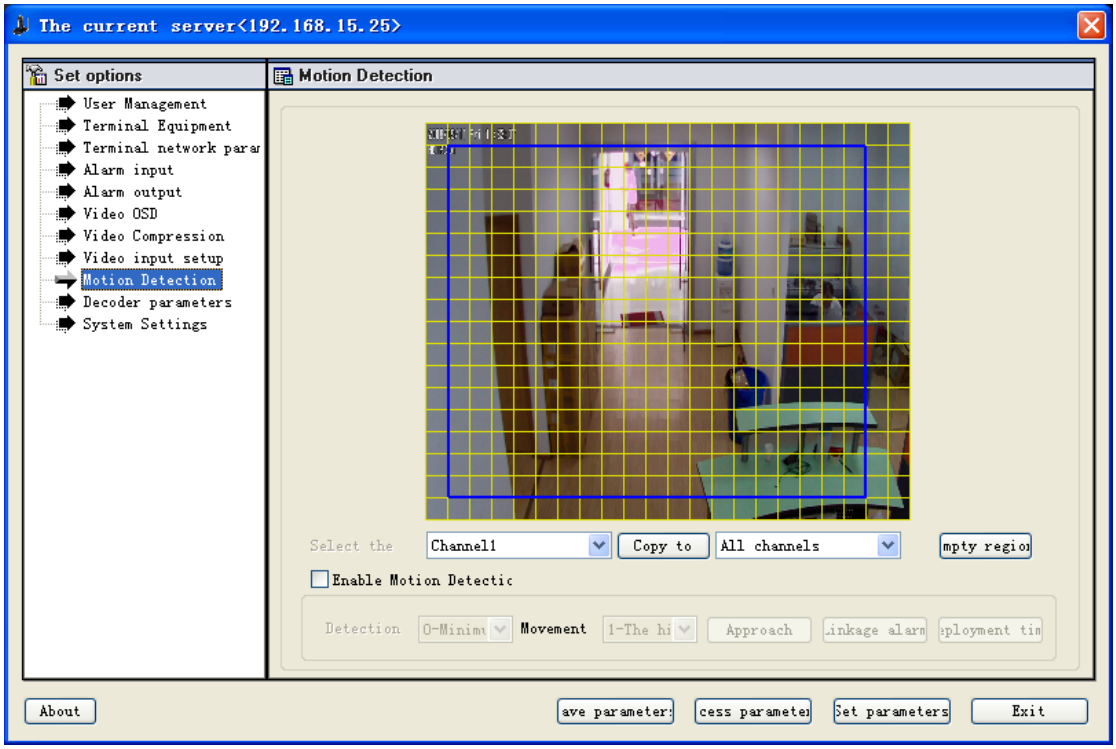


Figure 3-38

The processing methods for motion detection include alarming in a monitor, sound alarming, uploading to the management center and triggering alarm output, as in Figure 3-39.

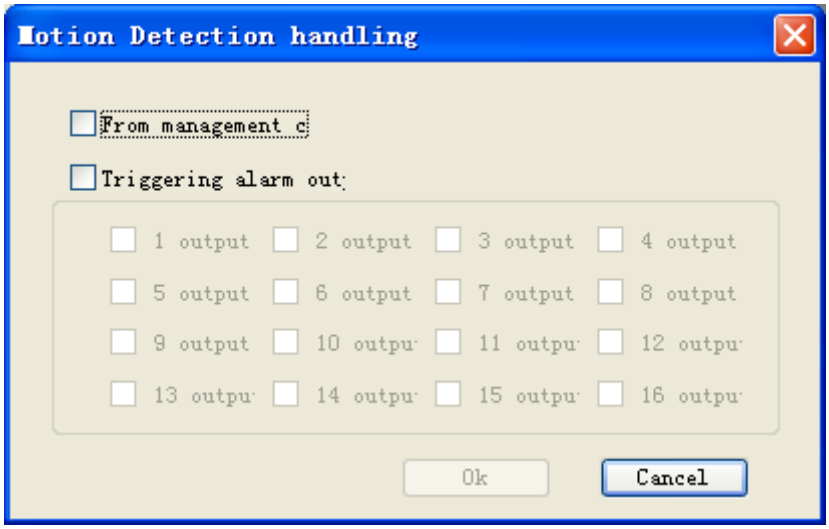


Figure 3-39

The interface for setting up Linkage Alarm is as in Figure 3-40,

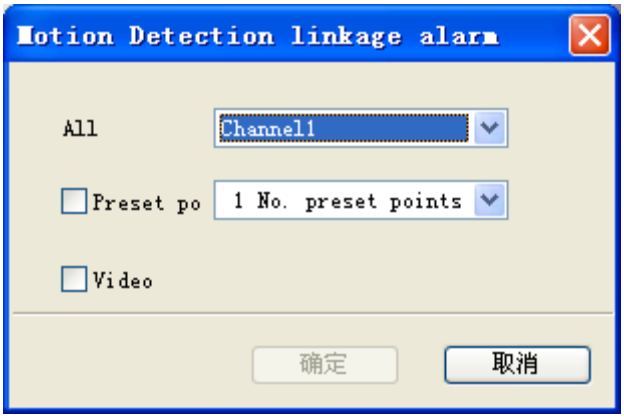


Figure 3-40

Setting up protection deployment time of motion detection: To set up the start and end time of each weekday in a week. It is able to add any time period in a day. If there is a same time period for each weekday, the setting can be copied. Time periods can be added, changed and deleted. The interface is as in Figure 3-41.

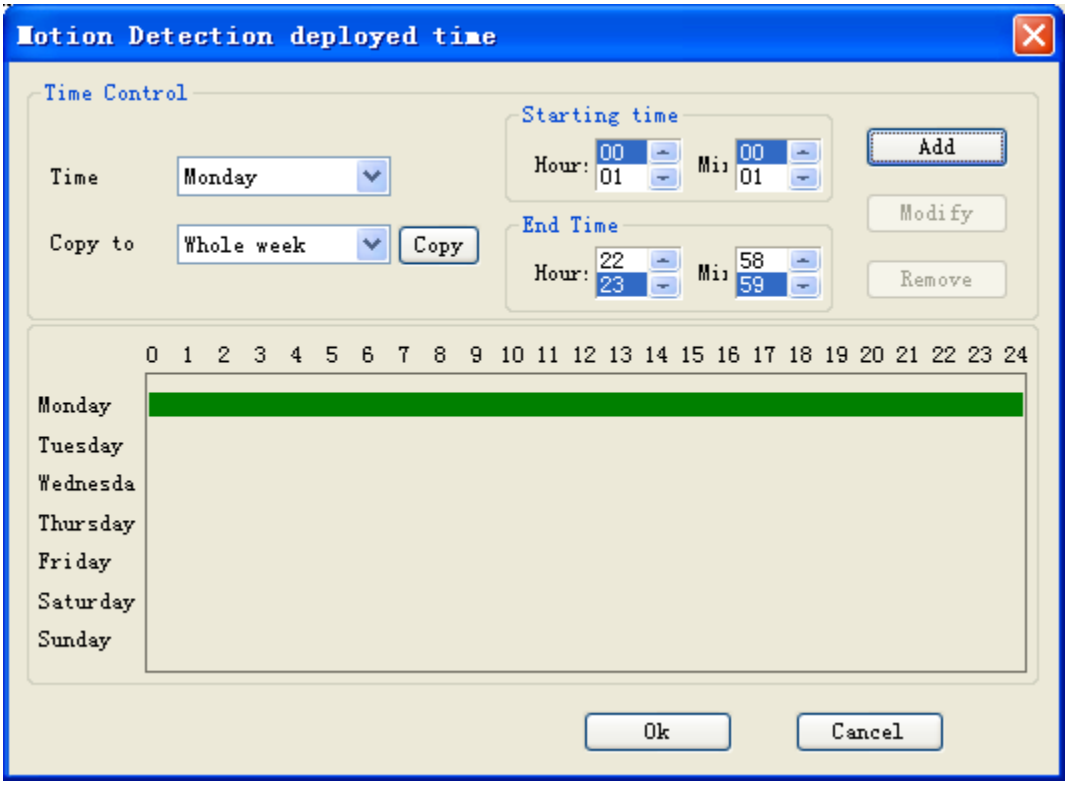


Figure 3-41

3.9.11 Decoder Parameter

Setting decoder parameter is mainly to configure remote configuration parameters when connecting a pan/tilt, including selection of control method, parameter setting, and pre-set point setting,

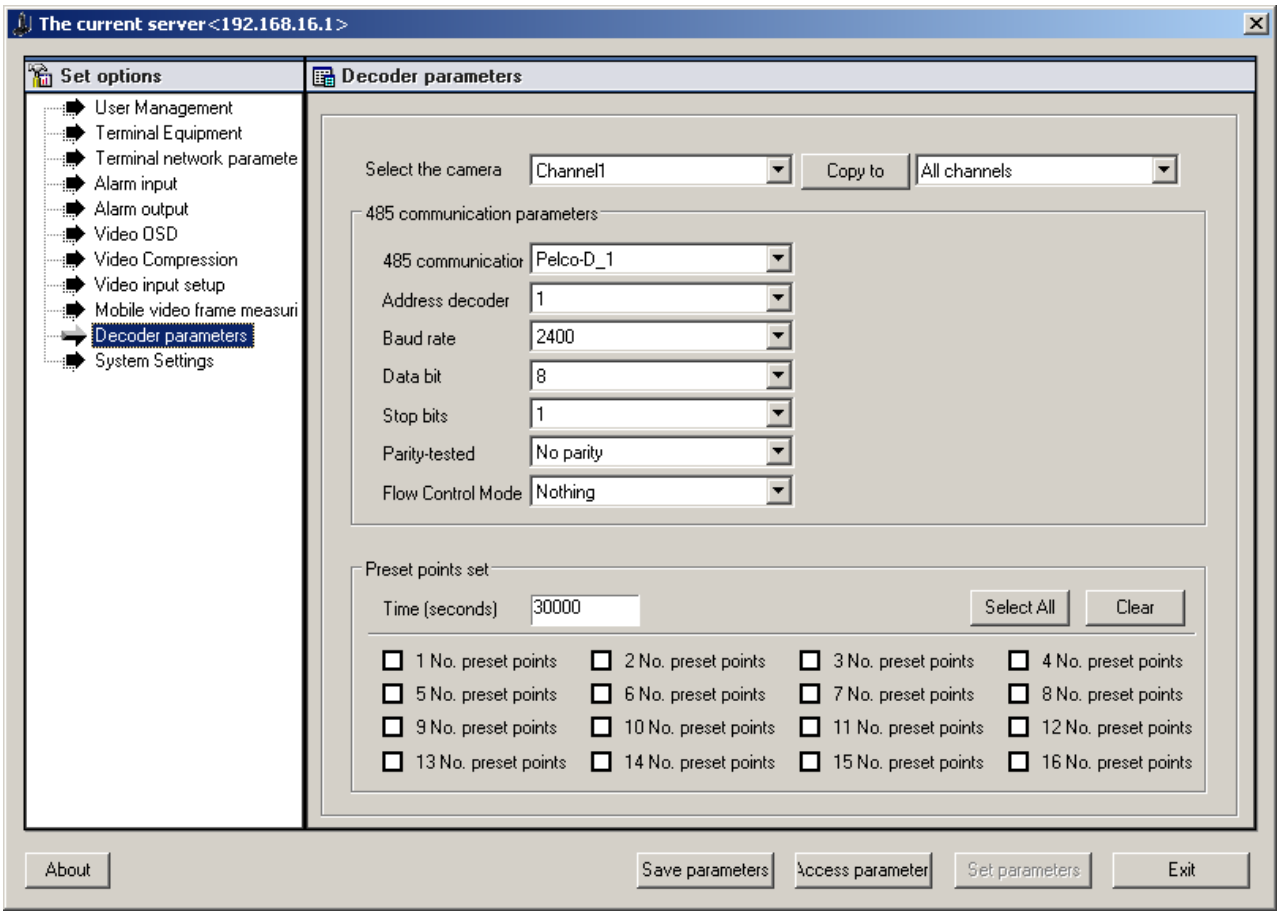


Figure 3-42

3.9.12 System Setting

System setting includes server upgrading, time for synchronizing devices and advanced device functions.

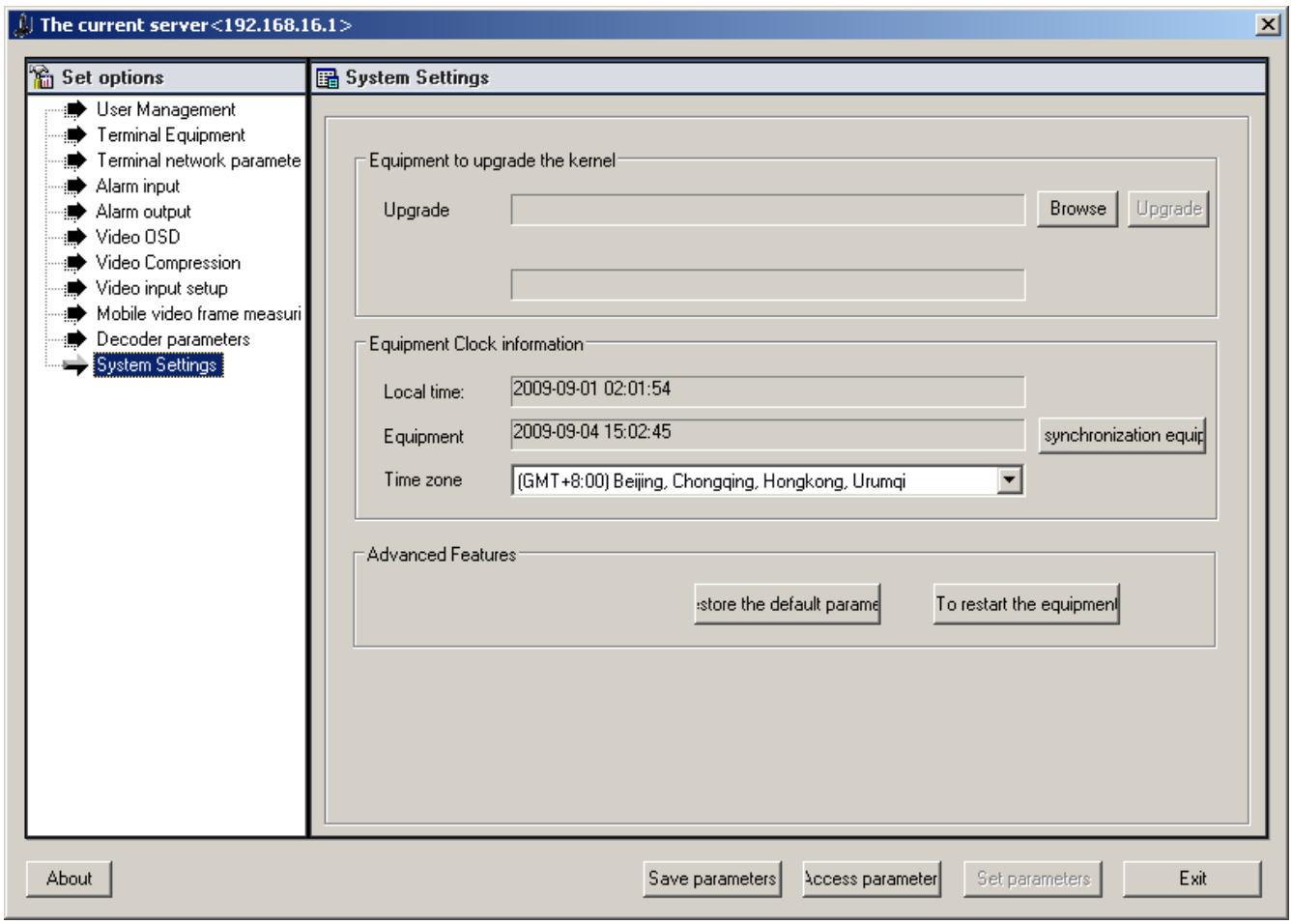
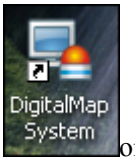

The current server<192.168.16.1>
Set options
User Management
Terminal Equipment
Terminal network paramete
Alarm input
Alarm output
Video OSD
Video Compression
Video input setup
Mobile video frame measuri
Decoder parameters
System Settings
System Settings
Equipment to upgrade the kernel
Upgrade
Browse
Upgrade
Equipment Clock information
Local time:
2009-09-01 02:01:54
Equipment
2009-09-04 15:02:45
synchronization equip
Time zone
(GMT+8:00) Beijing, Chongqing, Hongkong, Urumqi
Advanced Features
store the default parame
To restart the equipment
About
Save parameters
Access parameter
Set parameters
Exit

Figure 3-43

Chapter 4 Alarm and E-map

Alarm and e-map server can centralize the management of all alarm and map information in the entire system. After setting up association among protection areas, the alarm server can collect the alarming information from frontend nodes and process them together, e.g. viewing alarm information, answering and cascading TV wall, etc. E-map of the alarm server has multi-level e-map function. The alarm server relies on the running of the directory server. In this chapter, user can know about the operations concerning setting and association of e-map.

Click the icon 

on the desktop to start main window for e-map control.

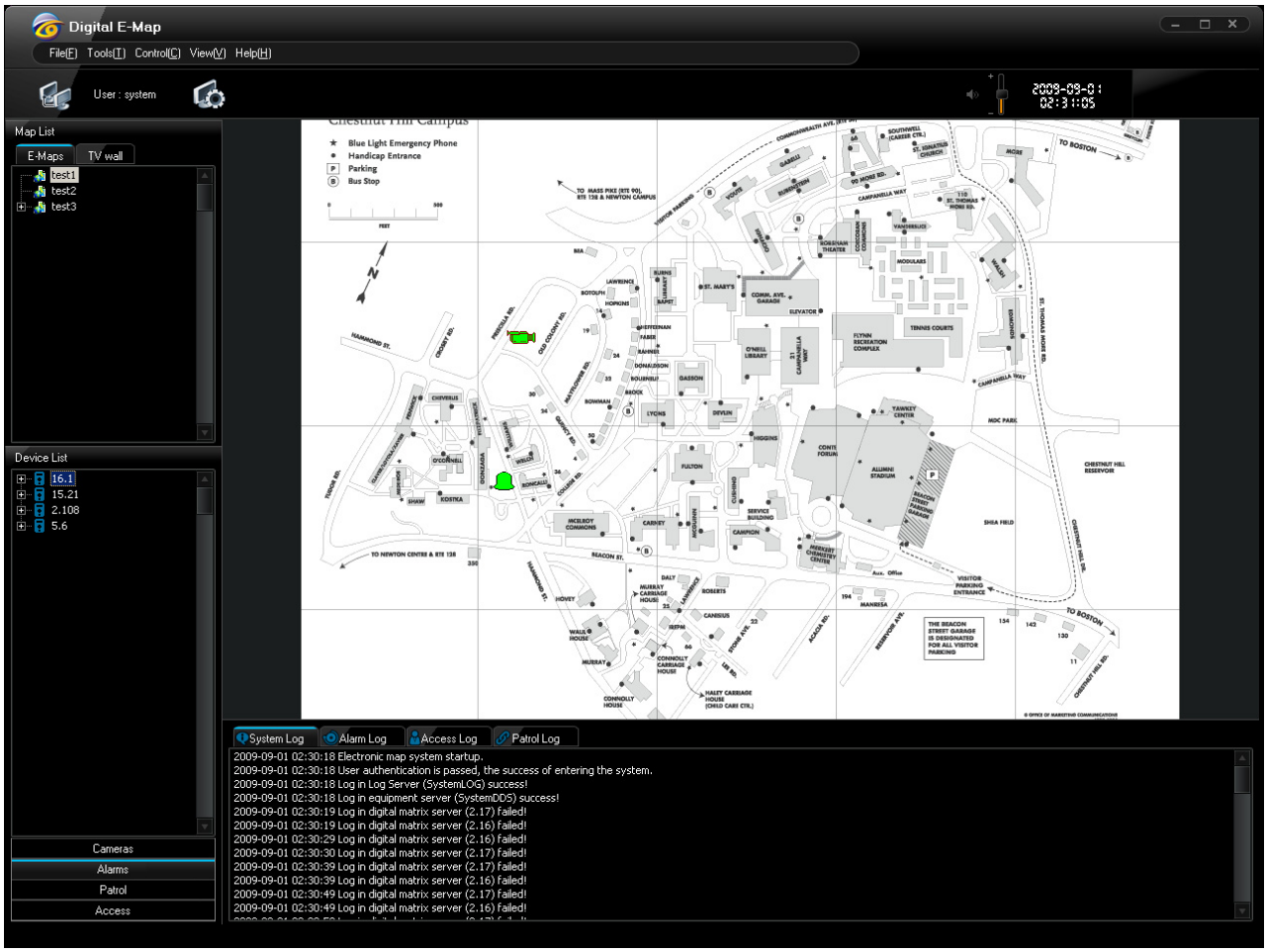


Figure 4-1

The system can support multiple maps. User can switch among them easily. And e-maps can be in common image format, e.g. bmp/jpg/gif, in any scale.

If a map is very large, it is able to move and position the map by pressing mouse and dragging the map.

Multiple servers can be set on each map. User can use mouse to drag the devices and sub-maps on the map for layout design.

The server shall warn users by flashing red icon when an alarm occurs.

When mouse is over a server or a sub-map, a label shall display the name of its corresponding server. Now right

click mouse to display its properties and select selection of whether to delete the label.

In the right-click menu of mouse, it is able to view alarm status on the selected server and manually deploy/cancel protection deployment, etc.

E-map can be displayed in this window. It is able to add host machine label on the e-map to associate it with the corresponding server. Select “Tool” – “E-map” or click e-map button on the toolbar to display e-map window.

4.1 Add and Delete E-map

1. Add New Map

Right click mouse in the map control window to select Open File dialog and then choose the corresponding map file. Map file can be in different image file format, e.g. BMP, JPG, GIF, etc. If a map file has no error, the map shall successfully appear in the map list panel. Double click and the map shall be displayed.

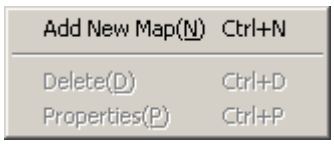


Figure 4-2

Note: The added e-map shall be recorded automatically in the system.

2. Delete E-map

Select the map that is to be deleted from the map control area, and then right click to select “Delete” menu to delete the selected map.

The deletion of a map is just to delete the information of the e-map from the management center, not physically delete the file.

4.2 Add or Delete Device

It is able to add labels of camera and alarm on e-maps, visually displaying the installation positions of video cameras and alarms.

1. Add Camera Label

Select “Camera” device from the control panel of the directory tree on the left and then use mouse to drag the camera to the corresponding position on a map to complete the addition.

The e-map after addition of host machine label shall record it automatically in the system. The position of the added device shall be locked automatically. If it is necessary to change the position of the device, please right click on the device to select “Label Position Unlock”. The label can be moved or deleted after being unlocked.

2. Delete Device Label

Before deletion of a device, it is required to unlock the label position first and then carry out deletion. Right click the label that is to be deleted and select “Delete device” from the popup menu.

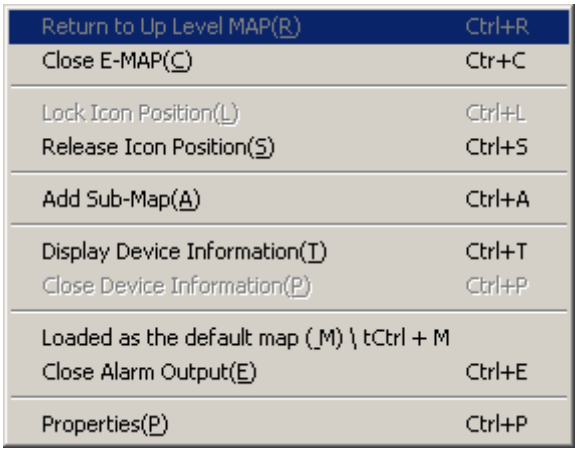


Figure 4-3

Follow the steps above to add labels for other devices, e.g. alarm, etc.

4.3 Linkage Alarm

After protection deployment completed for frontend devices, alarm server can capture the real-time alarm information of the frontend devices and set up the association of the related protection areas on e-maps.

1. It is optional to associate video camera with alarm. Select the menu “Tool” – “System Settings” to open Protection Area Setting dialog.

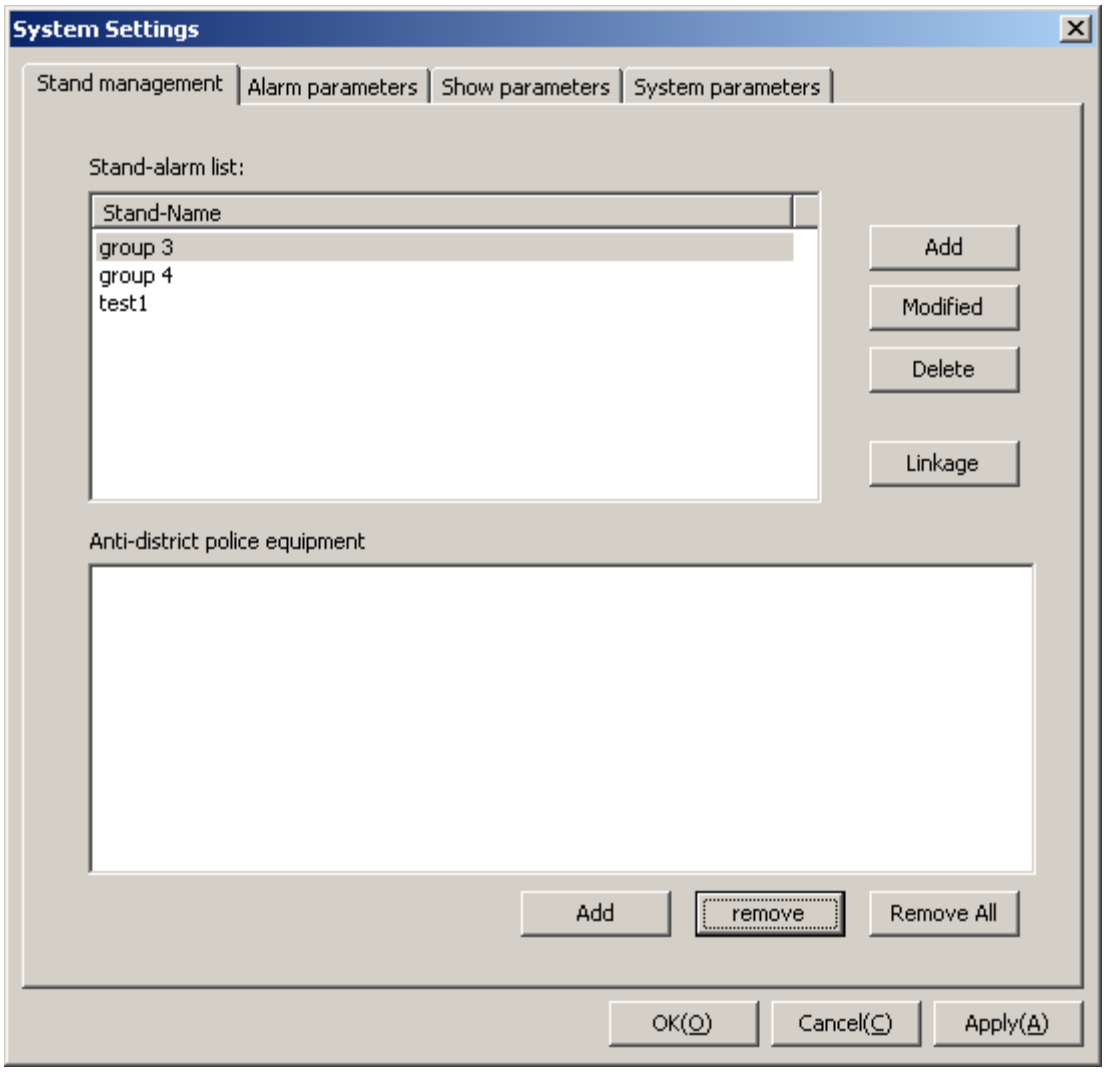


Figure 4-4

Protection Area is a concept in general, that normally means using detector (including emergency alarm equipment) to give protection to the protected objects and clearly displaying the region from where the alarm is on a control device. Normally, an organic integration consisting of associated video camera, alarm and e-map, etc., is called a Protection Area.

To add a protection area in the protection area management interface shown in the figure above, first select and then add the devices that are part of protection area cascading in the window bellow. It is able to select the corresponding video camera and alarm.

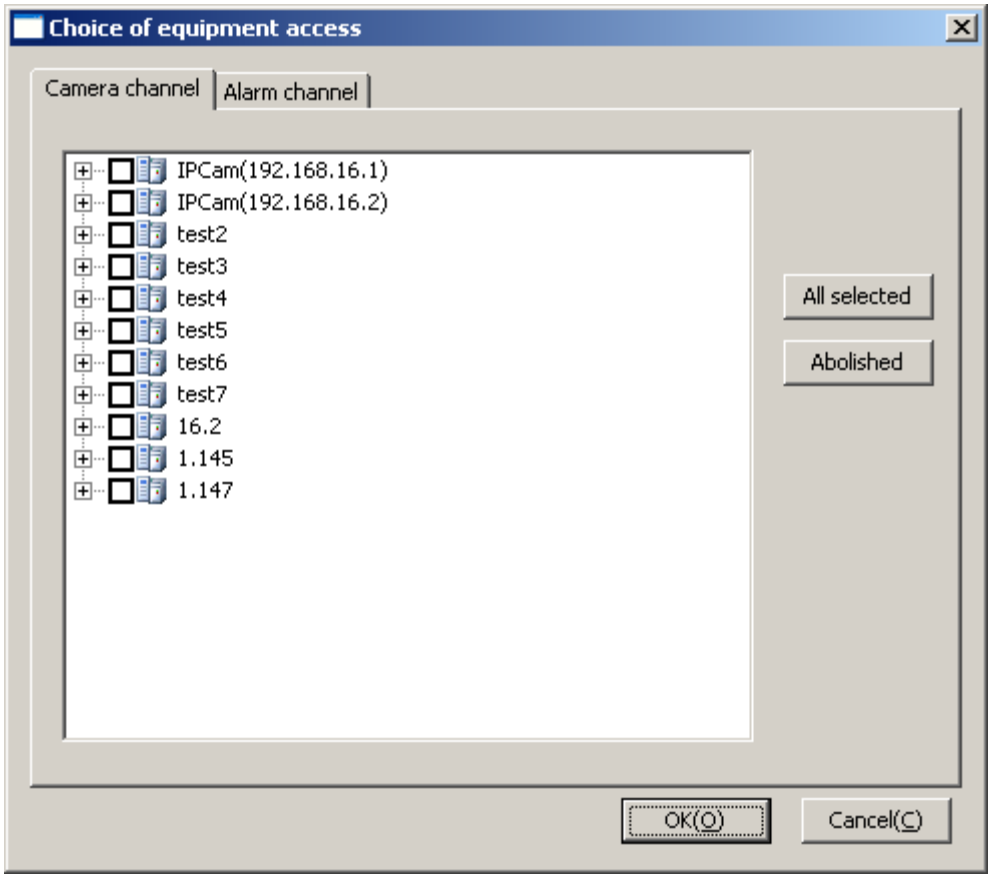


Figure 4-5

Select “Linkage Alarm” to set up joint action devices and the processing method after alarming. The added joint action video camera can invoke pre-set points of a pan/tilt and auxiliary switch if the camera is associated with the pan/tilt. In addition, it is able to send alarm video to TV wall and pop up in the video window on the TV wall. The alarm video can be connected in a floating window. Moreover, external alarming devices can also be connected.

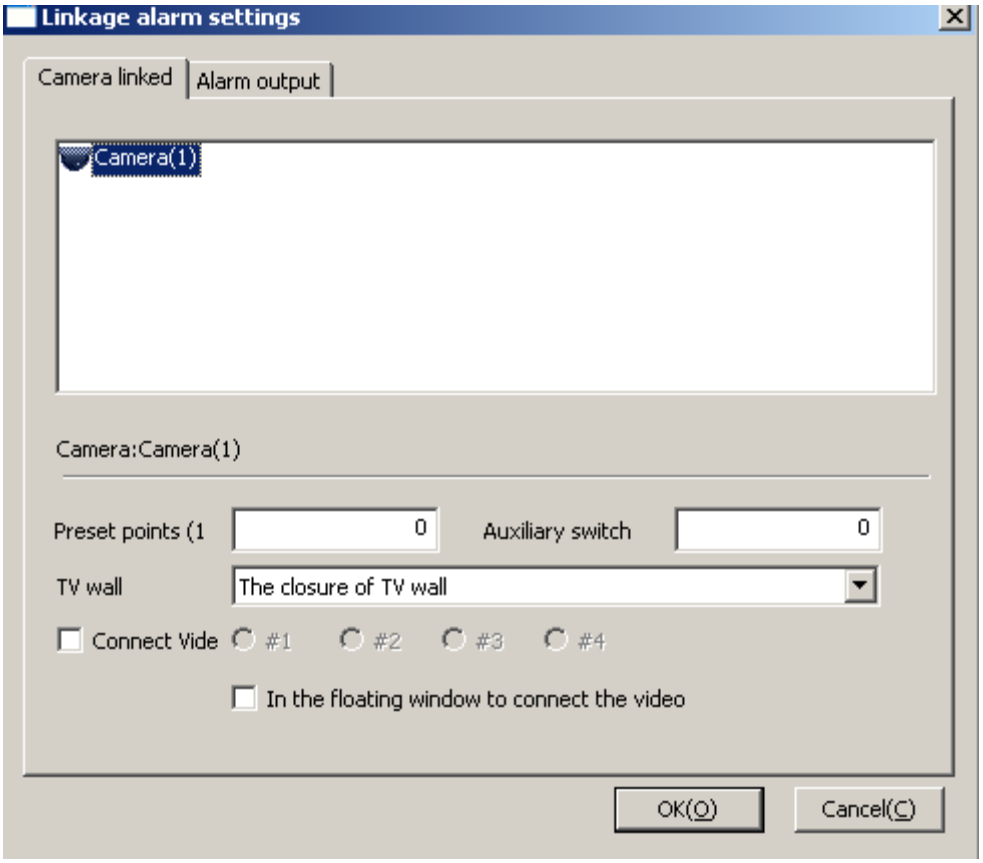


Figure 4-6

In the setting for alarm output, it is able to select channel number for external alarm devices, and sound, as shown in the figure bellow.

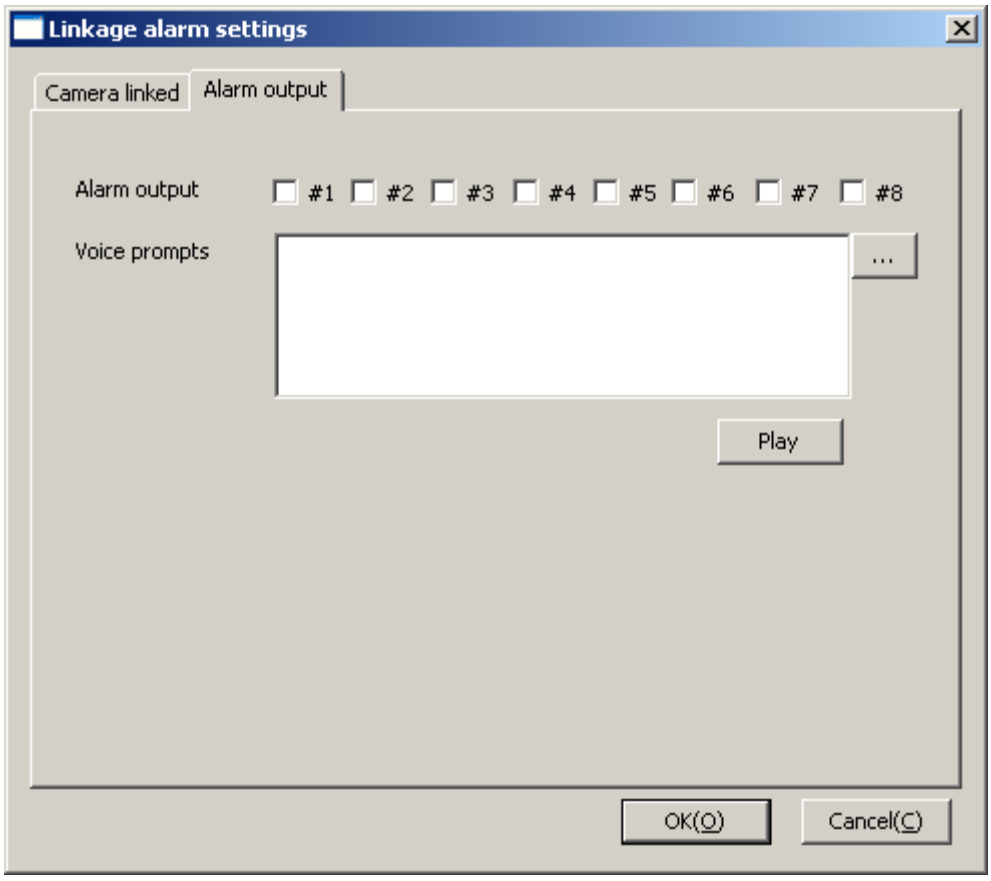


Figure 4-7

In alarm parameter setting, select “Alarm signal detection” to set up the alarm type for monitoring, e.g., alarming signal of alarm device, alarming by motion detection, blocking of video camera or loss of video signal, etc. In addition, it is able to set up serial port and baud rate for external alarm devices, e.g. alarming host machine and multi-function card, and to select whether to skip map automatically when alarming.

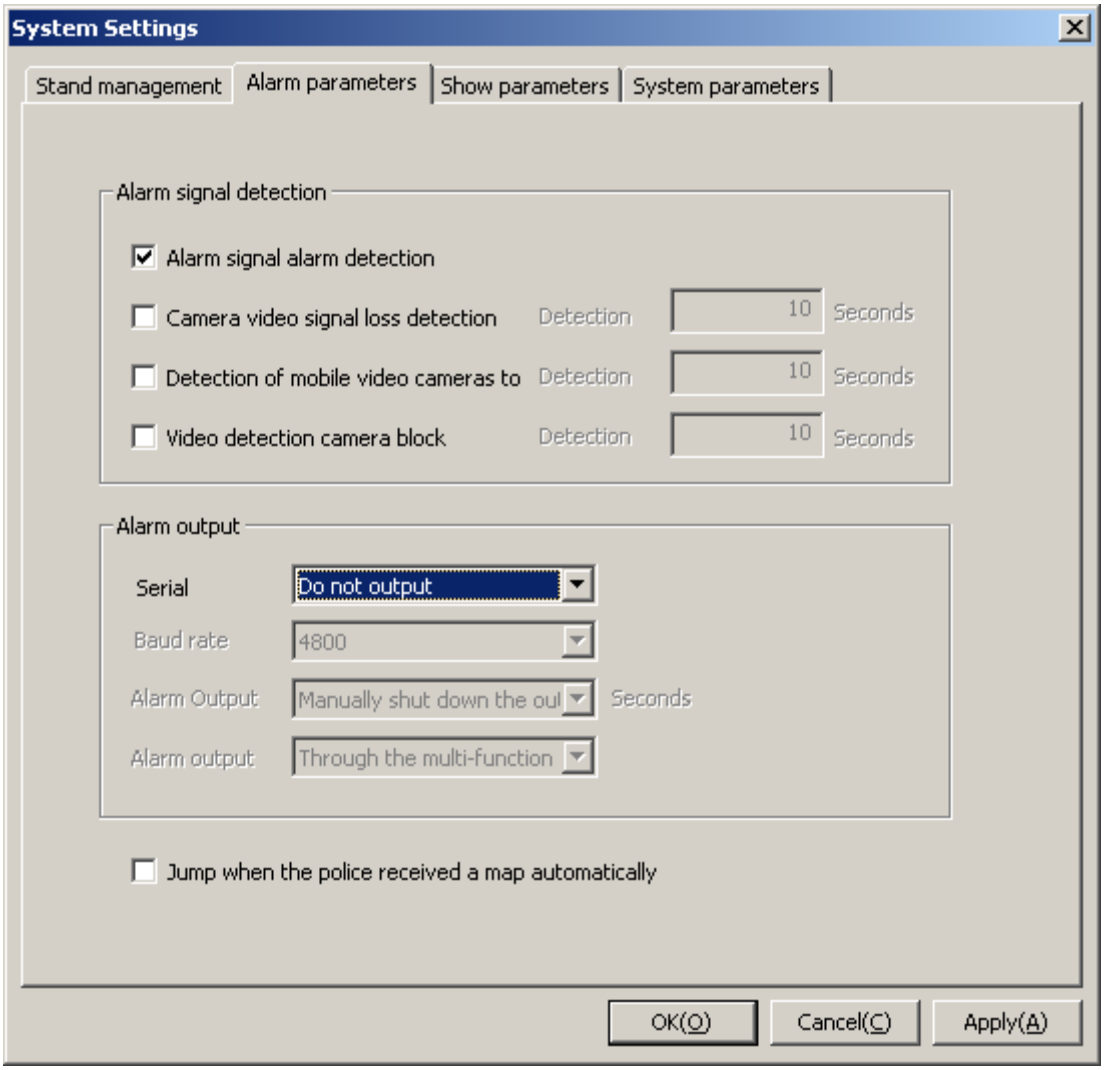


Figure 4-8

When alarming, it is allowed to connect alarm images manually/automatically. Double click the icon of a video camera on a map. The system shall pop up a small window to connect the video. It is possible to fix this video window in the area under the map.

In parameter display setting, it is able to adjust the position of display, as in the figure bellow.

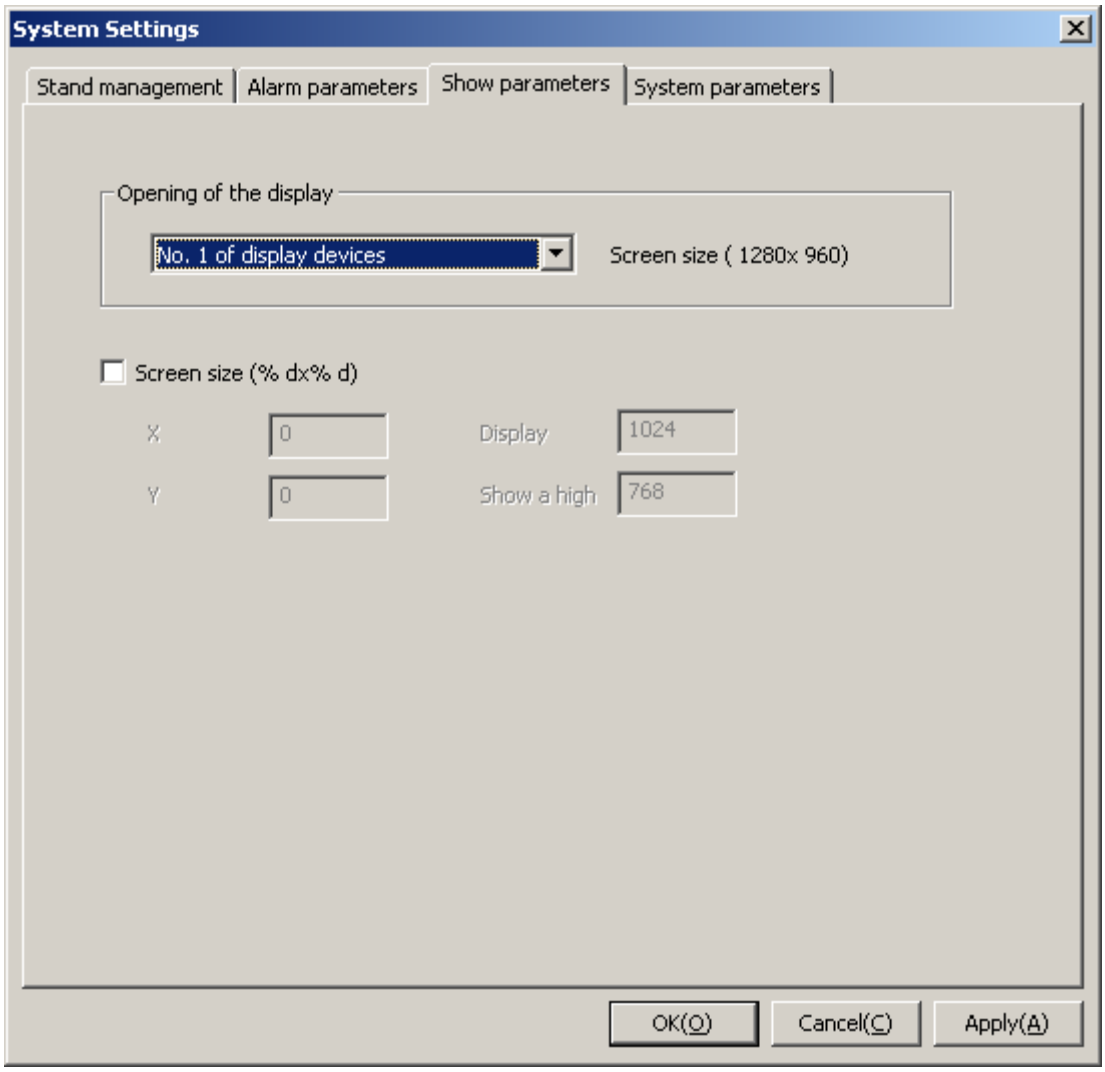


Figure 4-9

In system parameter setting, user can select system language, Chinese and English, and set up video window so that the system shall know whether to display the video window bellow when it starts next time.

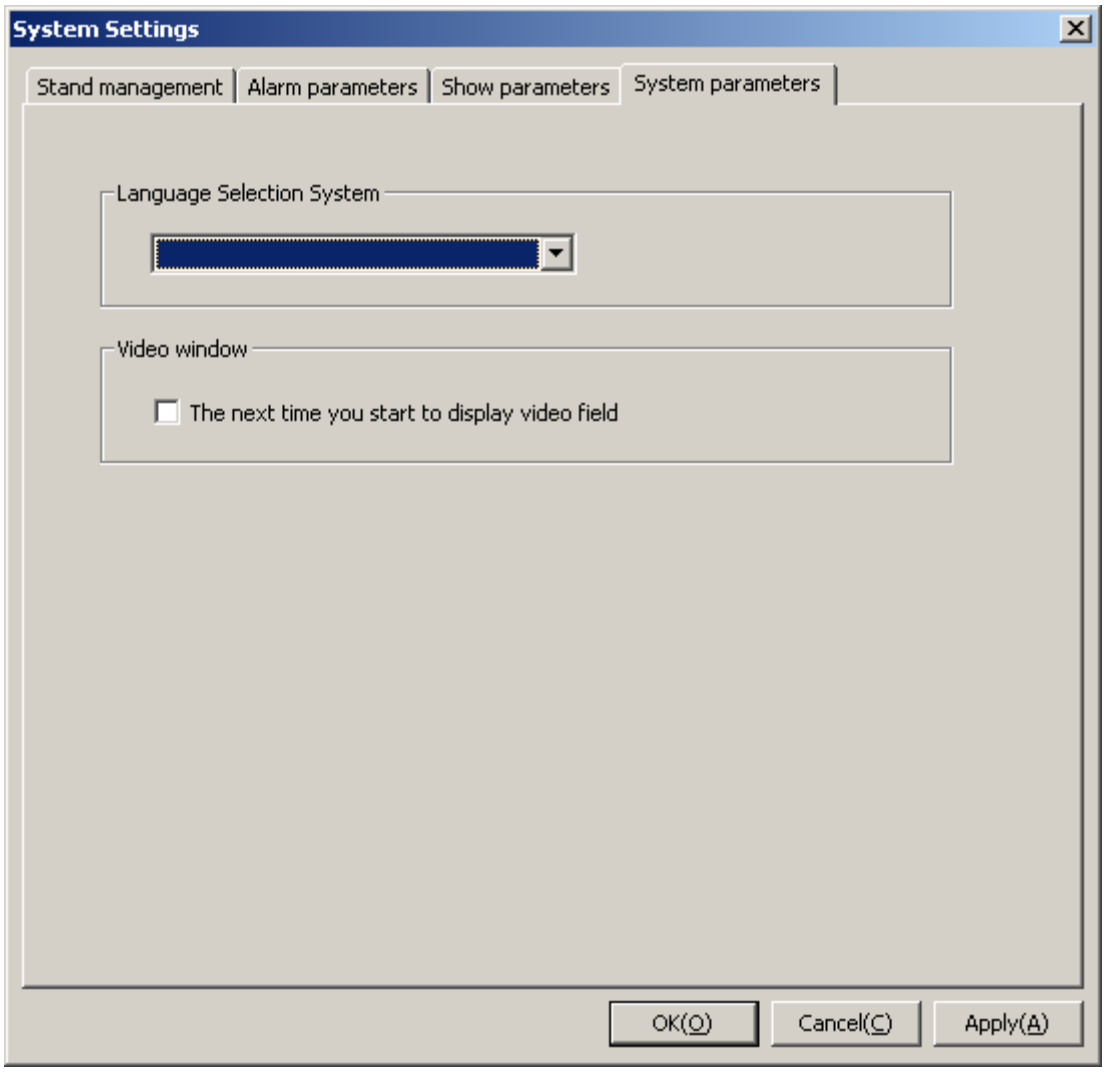


Figure 4-10

4.4 Log Viewing

The system can view system log and alarm log of frontend devices, inquiry the logs by setting query conditions. The query dialog is as following.

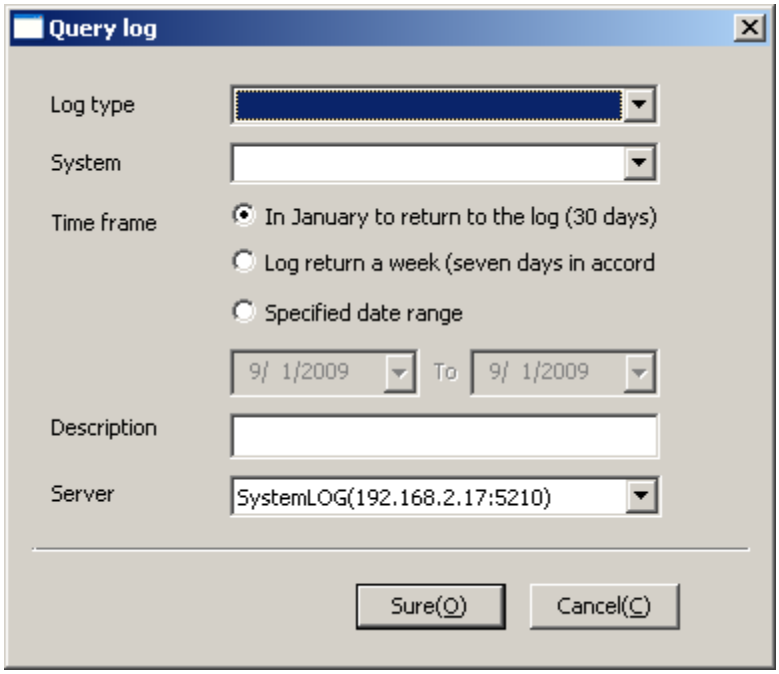


Figure 4-11

The interface for viewing detailed log is as following:

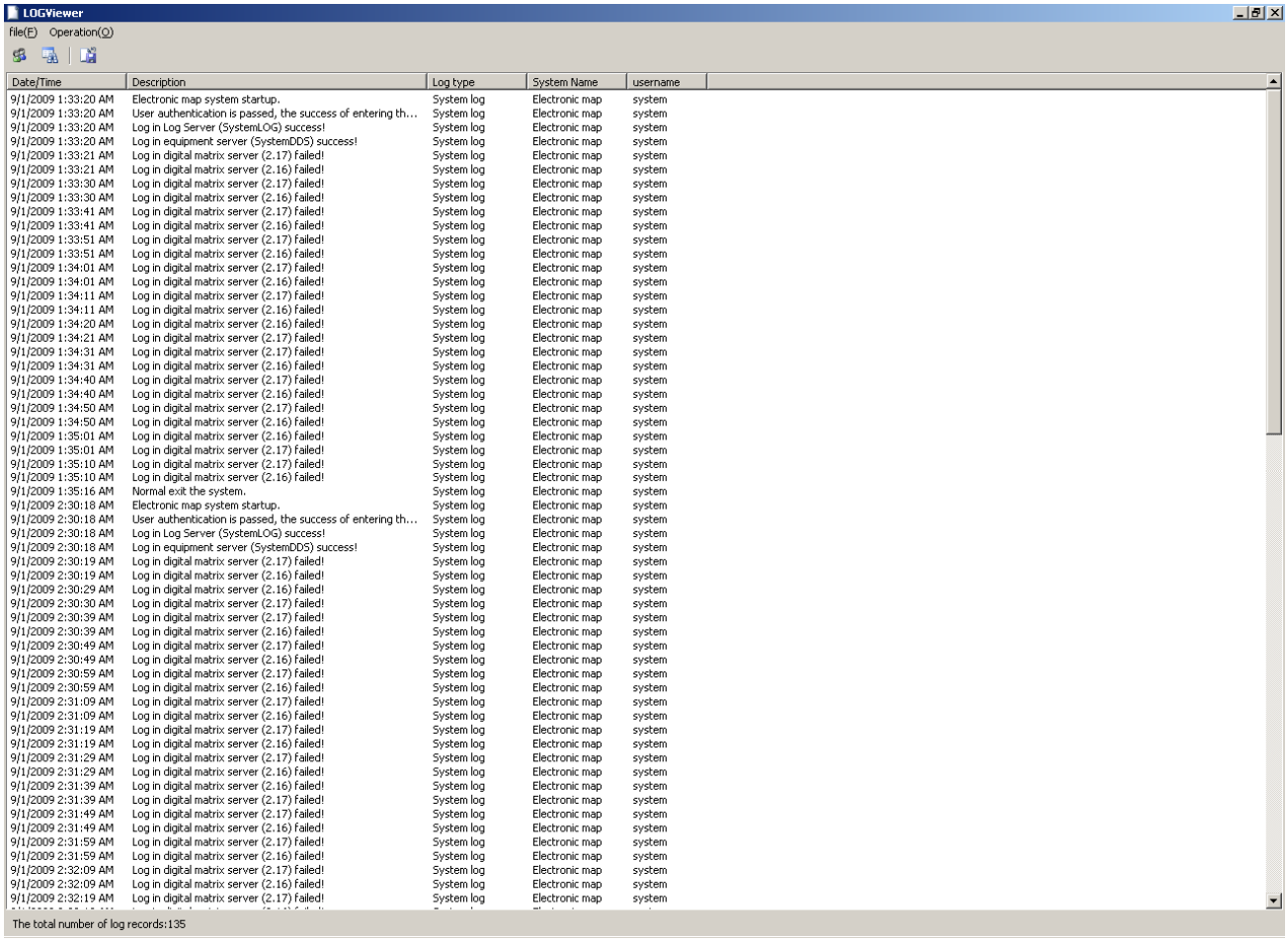


Figure 4-12

4.5 Alarm Answering Process

After setting up protection area joint action of the management center, the alarm generated by frontend devices shall be sent instantly to alarm management server to which it belongs. The alarm events generated by frontend devices shall be saved in database and enter into pending for processing queue;

1) Wait for system administrator or authorized operator to do answering process on the machine;
2) Relay the alarm to the alarm management workstation in this level. The workstation shall notify administrator to wait for processing by sound, light and signal light, etc.;
3) Relay to the alarm management server in a level above;
4) Frontend devices shall start recording or send alarm locally according to the configured Linkage Alarm policy;
5) As for historic alarm information stored in database, the system can respond to users' query conditions to display reports. Reports shall show the information of alarms, e.g. time, location and type. Users can click and play the video file recorded at the time of an alarm.
6) To support priority processing of alarms having high priority;

Authorized users can answer and process the alarm information. Right click the alarm icon on an e-map to select "Alarm Processing" menu to process alarm signals.

Chapter 5 Decoding and TV Wall Controlling

The management center system can realize and enhance functions of emulated matrix. Software in client end can only carry out simple viewing and pan/tile and lens controlling. However, the component in the management center is extremely flexible. Management center can connect with any authorized frontend video camera channel. The information of the video channel connected to the management center can be obtained in real time. By using mouse or CCTV keyboard, the system can switch PC monitor or emulated monitor manually or automatically, and invoke cyclical or group switching. Like control matrix, users can view images on PC display or monitor in the same way, providing an effective and convenient control method for users. By relaying videos, any number of users can use the functions of virtual matrix simultaneously, providing a powerful multi-user virtual matrix system.

Click the

button on the desktop to log on digital matrix platform. Main window of the system is an emulated TV wall window for use of decoding control.

Figure 5-1

5.1 Display Images on TV Wall

After logging on successfully, select a video camera from the directory tree on the left and then press and drag mouse to the decoding window of TV wall to decode the video from this camera and output it in the window. When using hardware decoding devices in the system, the system shall synchronize analog output during decoding, that is to display images in the screen on the TV wall.

5.2 Video Camera Group Switching

When the system enables display mode of video camera group switching, the images of video cameras added into video camera groups in the directory server shall be display by group in window. Users can use mouse to drag video cameras in the directory tree to group switching channel at which time group switching shall pause till the time meets the time period specified by the time, then resume.

In system setting, users can set up whether to display Common Information in full screen directly after startup, default cyclically switching time of cyclically switching video camera information, and time buffer for data stream, etc., as shown in the figure bellow:

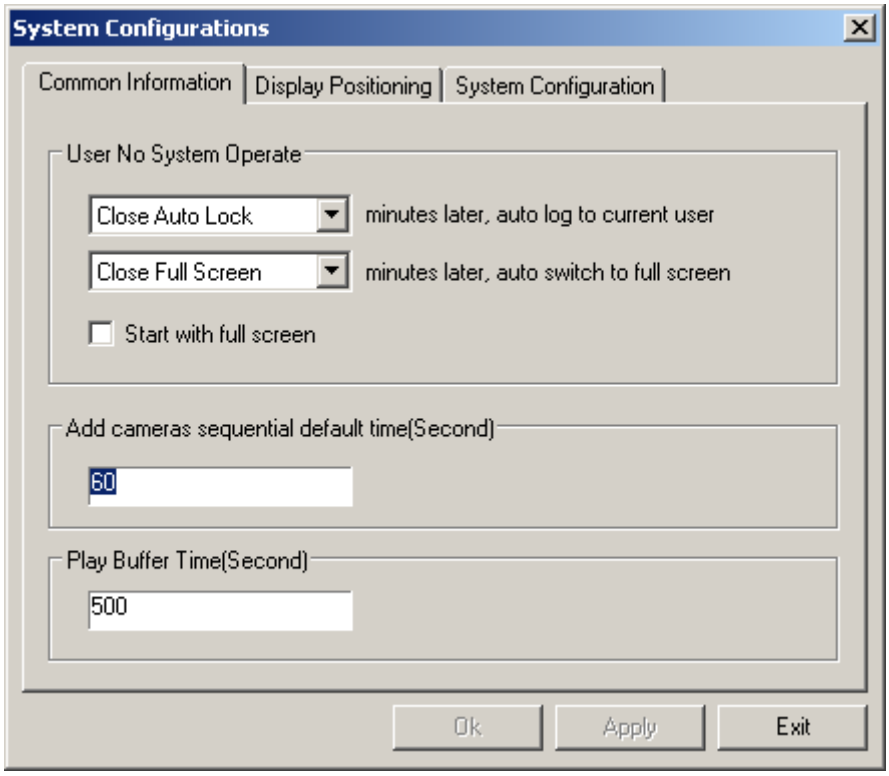


Figure 5-2

Display position can enable display devices and set up display configuration:

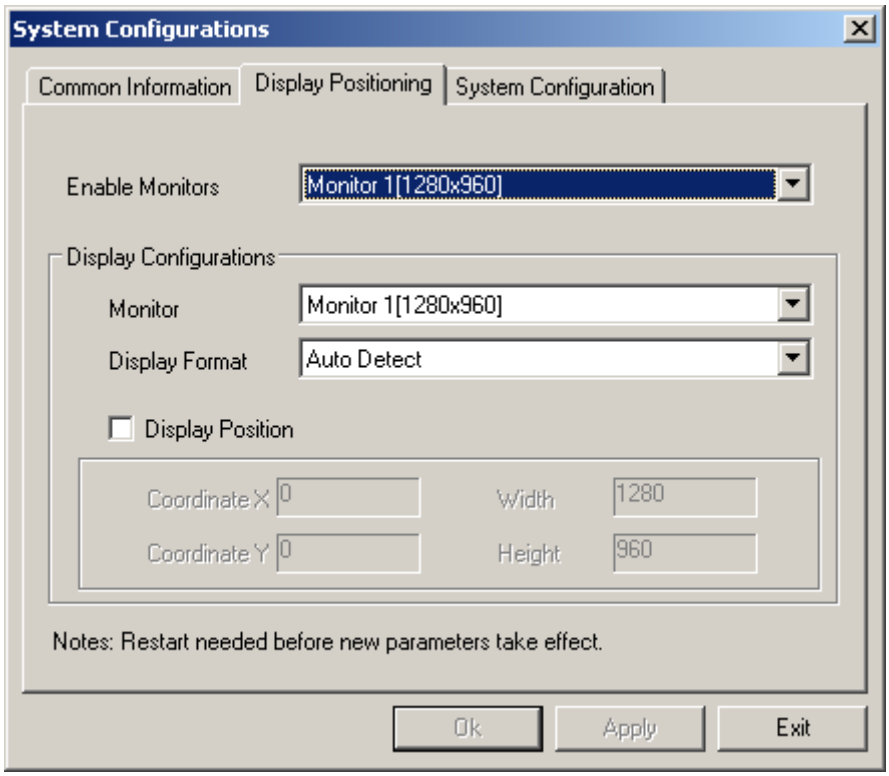


Figure 5-3

System configuration can set up system language, whether to play sound and startup mode, as in Figure 5-4.

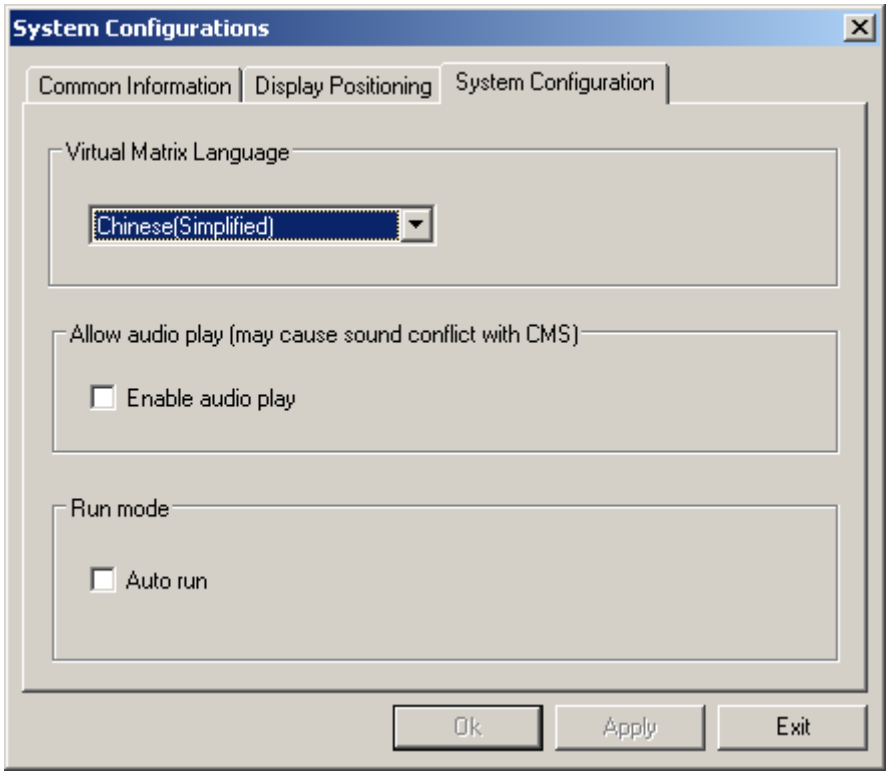


Figure 5-4

5.3 Control TV Wall by Management Center

Click “Emulated TV wall switching” icon on the toolbar in the main interface of management control center to

control the TV wall server in the management control center.

Operation step: Firstly click “Emulated TV wall switching” icon on the toolbar in the interface of the management center to drag the TV wall that a video is required from the directory tree of TV walls on the left into the video display window on the right. Then drag the video cameras in the server list to the TV wall on the right at which time there is no image display in the emulated TV wall in the management control center. However, the corresponding window of the TV wall software shall display the dragged image so as to complete the control of TV wall by the management center.

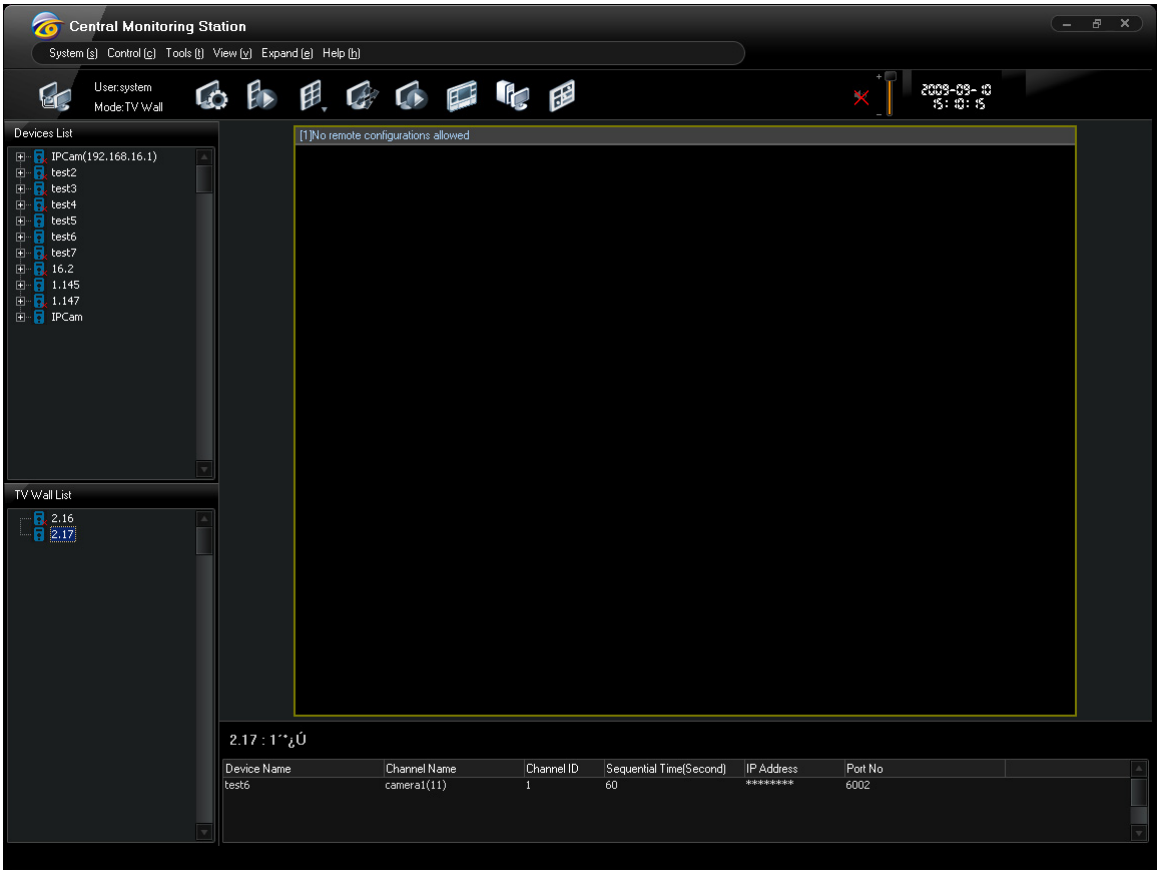


Figure 5-5

Chapter 6 Store and Play

Presently there are two commonly used methods, distributed storage and centralized backup as well as real-time centralized storage. Distributed storage and centralized backup is to store the recorded videos separately in local hard disk of each DVR/DVS device, then regularly upload them to the server of the management center or trusty servers in the system for centralized storage by schedule. In contrary, real-time centralized storage is normally for the use of video server and network video camera without frontend storage. Video server shall save the collected video data into a central storage server in real-time via network. Two methods have their special features and users should select different storage method based on different system requirement.

In the management center, video is managed in the storage server.

Double click the shortcut icon

on the desktop to enter centralized storage configuration.

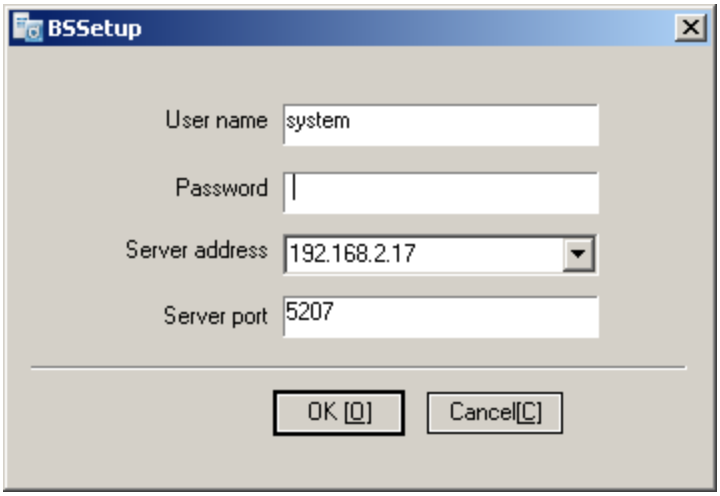


Figure 6-1

The system can automatically search for the directory server, select the address of the directory server that the system shall log on, input authorized username and password on the directory server, and use default port. In order to avoid unauthorized user from using the system, it is required to add the information like the address of storage server, into the directory server before any usage.

6.1 Server Management

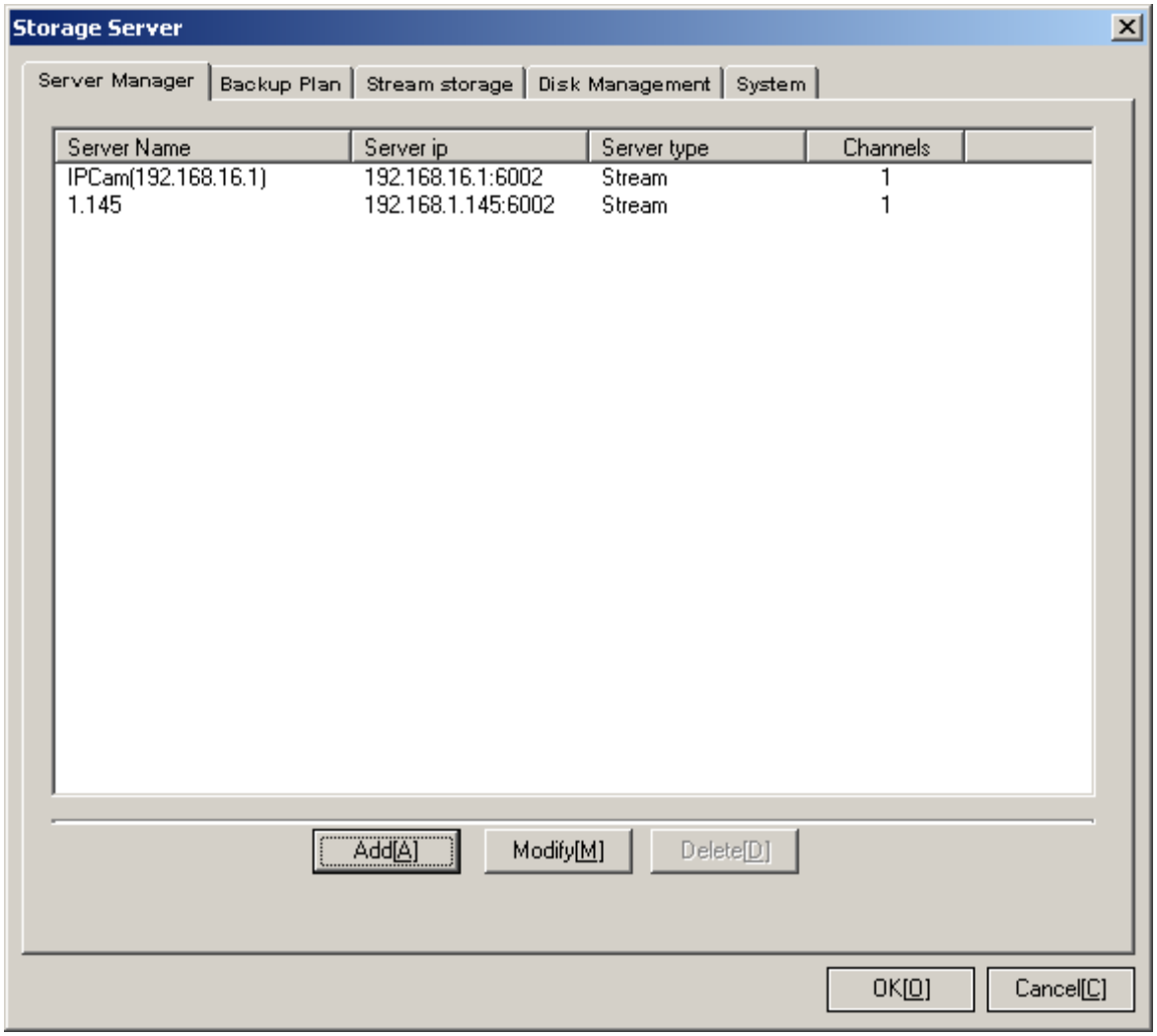


Figure 6-2

After successfully logging on the directory server, it is required to set up the frontend devices that are necessary to be enlisted into the current storage server, including network video camera, DVR, video server, etc. Normally it is only needed to select from the device directory tree.

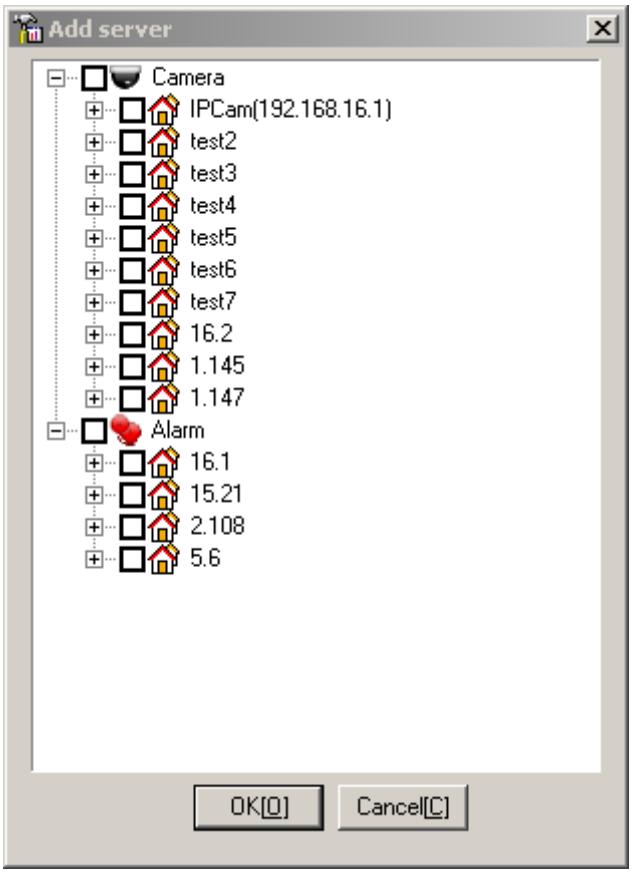


Figure 6-3

Check the checkbox beside a device or channel node to indicate that the device or channel would be part of storage scheme. Check alarm bellow to set up Linkage Alarm recoding. The figure bellow shows the result of the configuration.

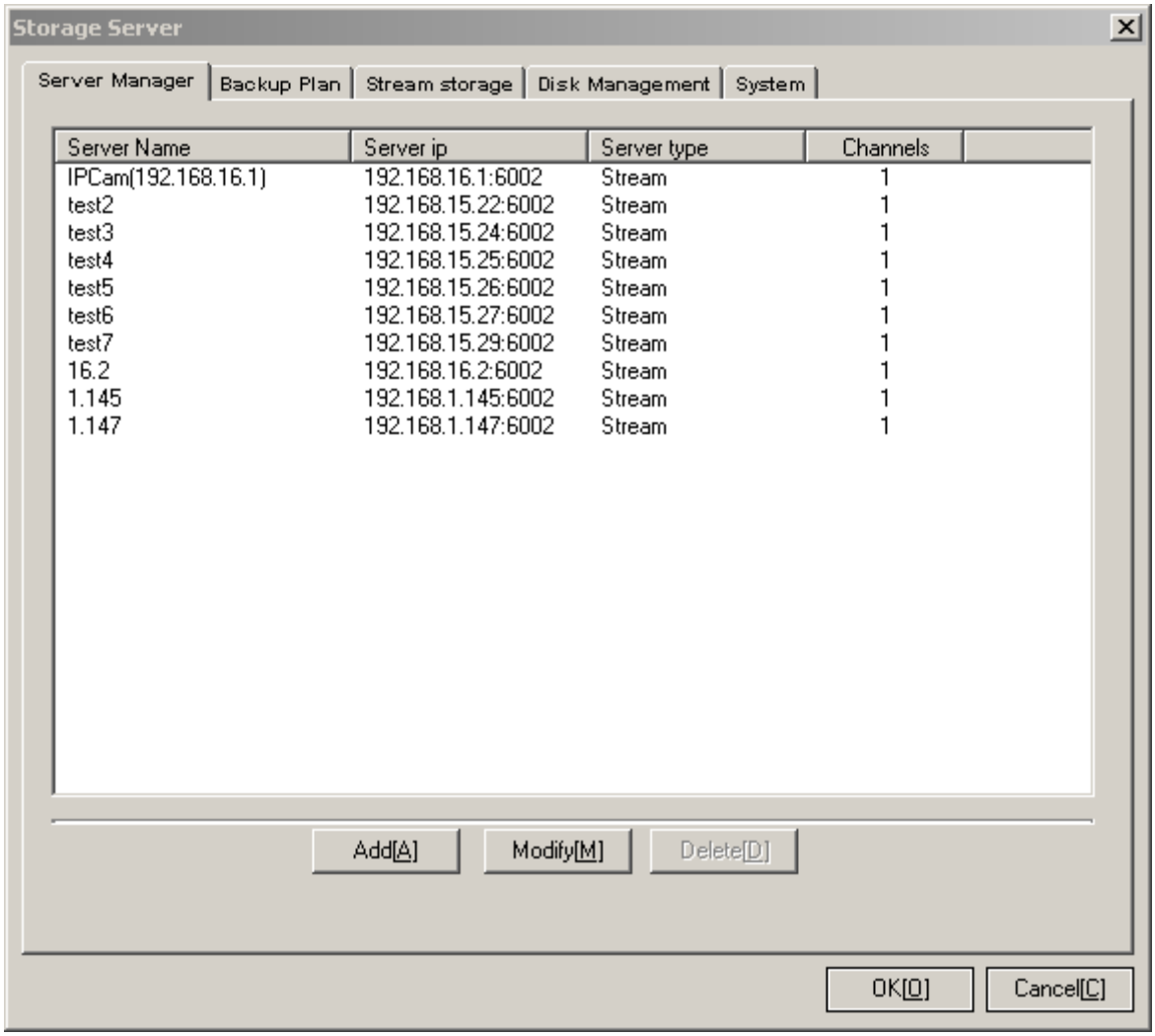


Figure 6-4

If an added server device is not required, it is able to click “Modify” or “Delete” to re-set.

6.2 Backup Scheme

In the circumstance of narrow bandwidth between frontend devices and storage servers, a backup scheme shall be adopted. Real-time data files shall be stored on the frontend DVR host machine. Then the storage server or the management center shall send requests regularly, according to the scheme, to transfer those data files from the DVR host machine to the storage server or the management center via network. Select “Backup Plan” to open the setting interface for backup scheme.

The figure bellow can set up backup timetable for video files on each server. Selecting server, weekday and start and end time is to set up the recording scheme for the current server at some day. Storage scheme is to think a week as a cycle. If the backup scheme of each weekday is same, it is able to click “Set same scheme for each day” button. If all servers have the same backup scheme as the current server, then click “Same scheme for all server” so as to quickly set up the recording time table for each server.

It is required to modify or delete the recording scheme of someday, first select the blue stripe in the timetable of that day, then click “Delete” button.

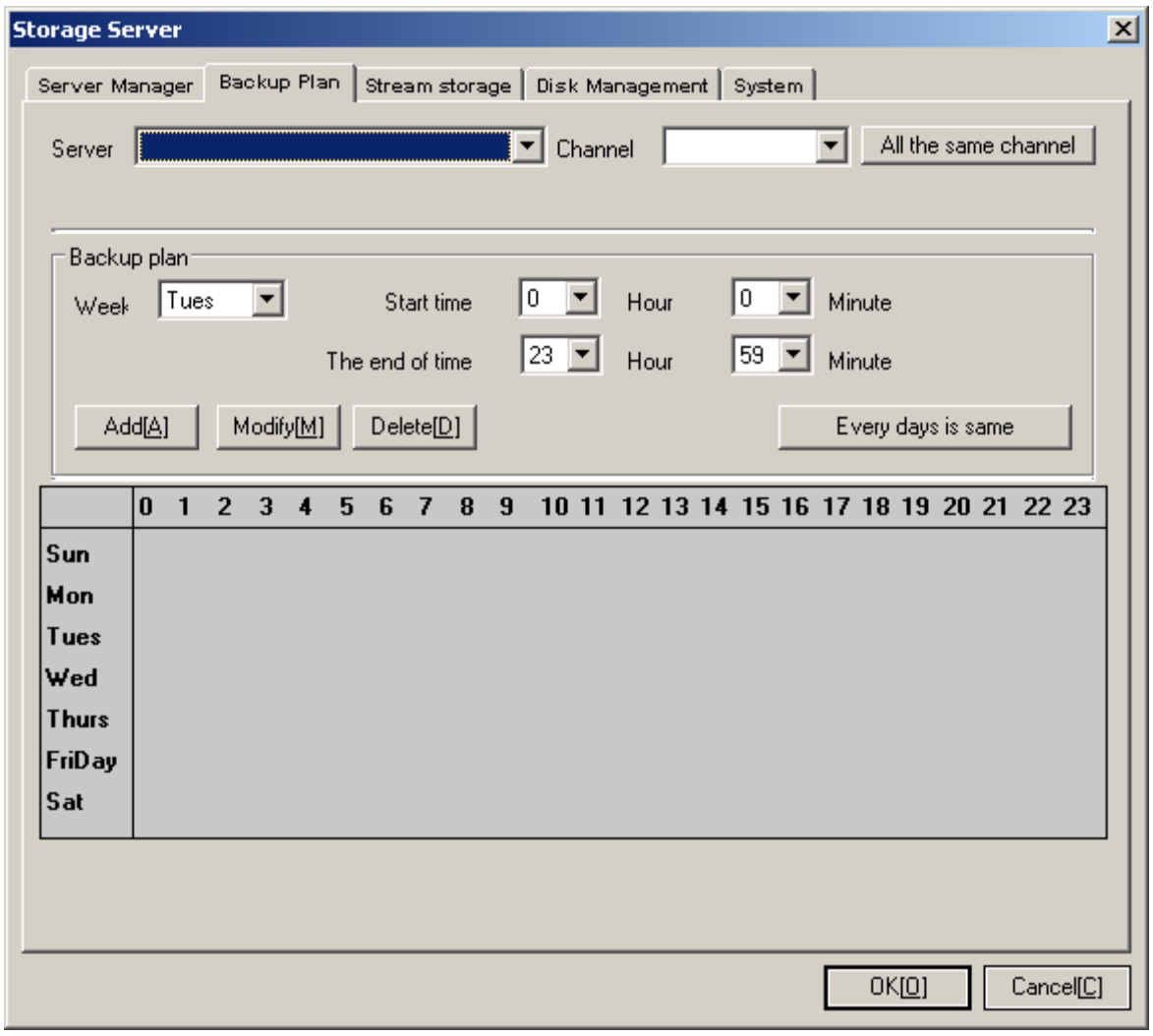


Figure 6-5

6.3 Stream Storage

In the circumstance of the frontend server devices with no storage, e.g. video server, etc., it is able to adopt synchronized real-time data storage mode to store the recorded video files. In the mode, storage server can receive data from DVR.NVS server host machines at monitoring positions in real time, and store them on the storage server or the management center. This is a way suitable for the situation that network bandwidth is sufficient for the sum of data stream from monitoring positions that are required to be saved, e.g. LAN, broadband network or optical-cable special network. Click “Stream storage” in the interface to invoke stream data storage scheme setting.

Compared with backup scheme, there is an extra selection for recording video type. Users can select from 3 video storage mode, including constant recording, motion detection and alarm.

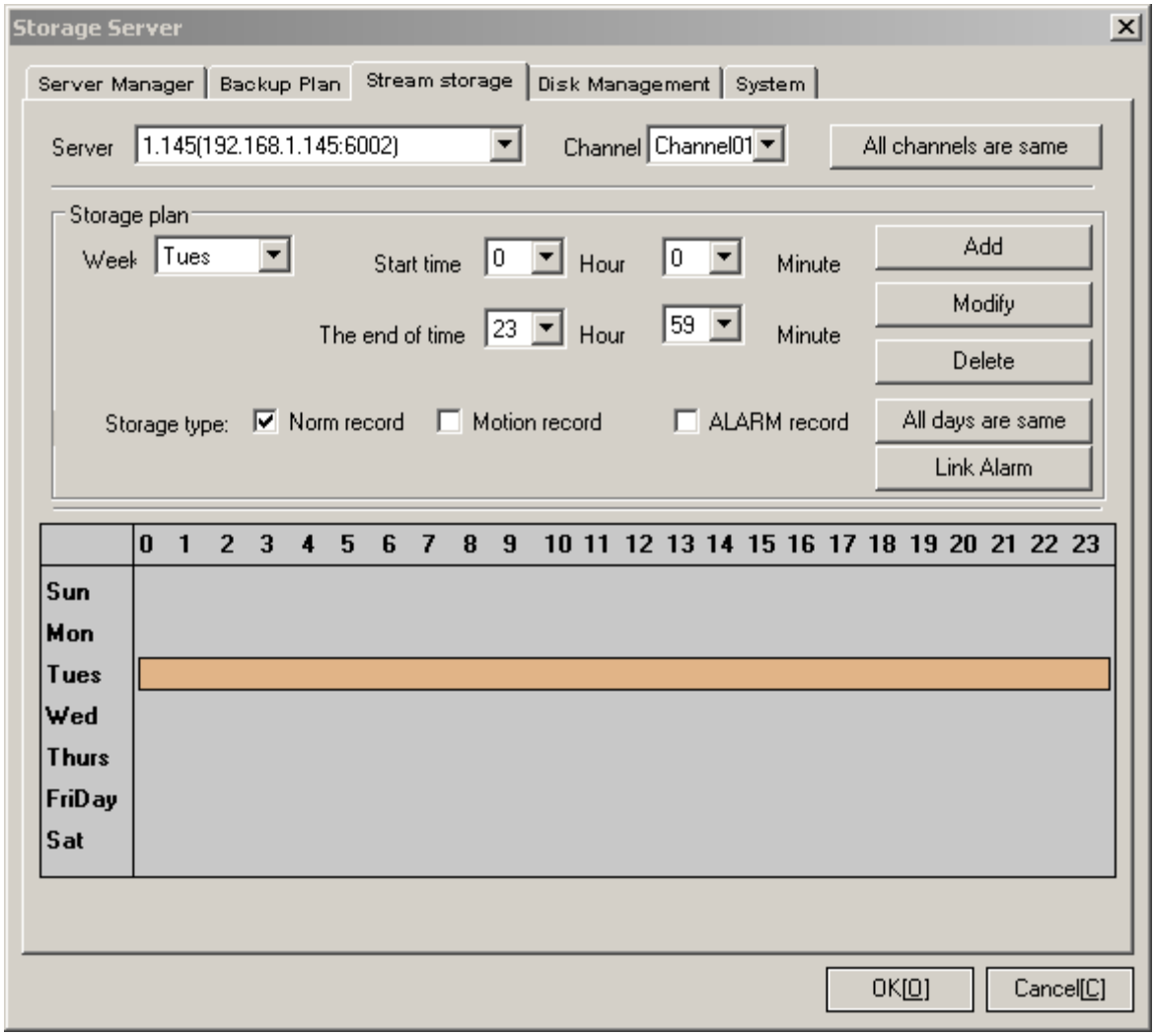


Figure 6-6

When the recorded video type is one at the time of Linkage Alarm, click “Linkage Alarm” button in the page on the right and check the alarm devices associated with the video camera. When the frontend alarm devices detect any alarm, the storage server in the management center shall start recording the alarm.

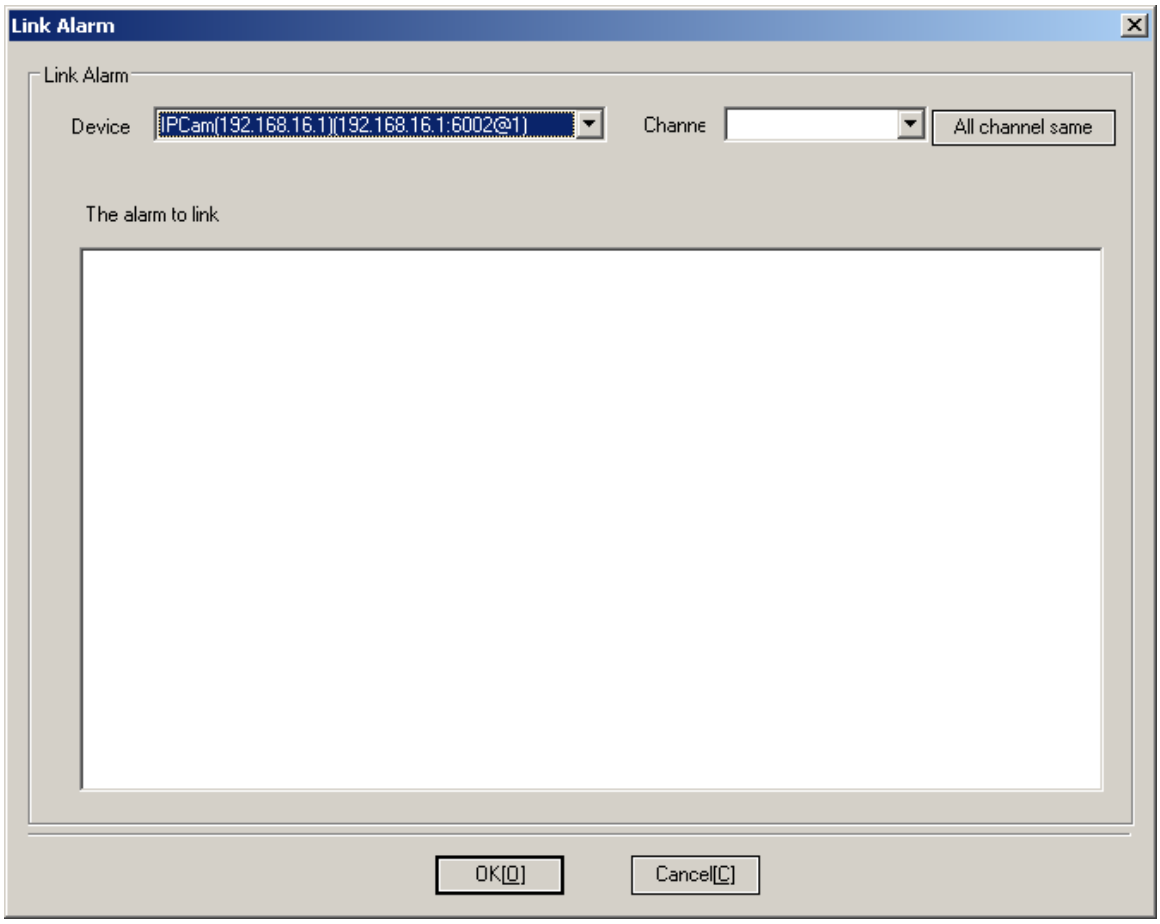


Figure 6-7

6.4 Disk Management

Select “Disk management” to set up the disks on the storage server for recording and the size of real-time stream recorded video file.

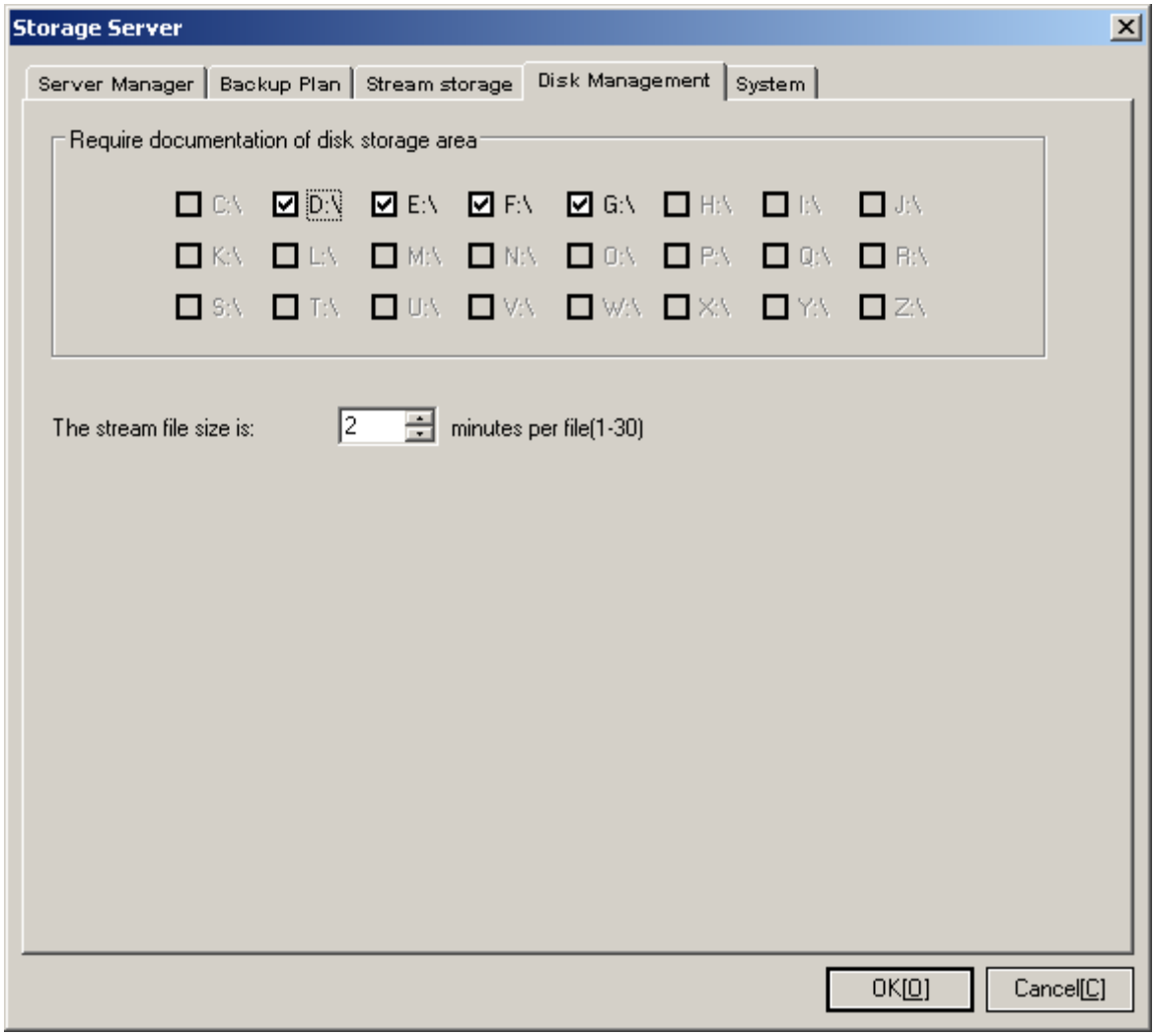


Figure 6-8

System tab panel is to set up the language used by the system.

Chapter 7 Stream Media Relay Server

Stream media relay server is one of the basic components in network video monitoring management system to complete broadcast/multicast relay of video images and relay of recorded video files, etc., and to realize the conversion between different devices.

Single DVS server host machine/management center system can meet the requirement of a simple and small-scale remote monitoring system. As for multi-level remote monitoring system, when multiple users access one video stream simultaneously via limited bandwidth, each connection shall occupy a WAN bandwidth resource. Due to the limitation of network bandwidth and system resources, the number of requests that can be accepted by each server is limited. When the number of connection is over certain amount, the system may work unstably or the connections may be broken. We can deploy and install stream media relay servers respectively in local LAN, remote general control center or remote sub-control terminals. So the connections that access DVS host machine or NVS devices can be distributed and transferred to access multiple local stream media relay servers. In theory, stream media relay servers can be connected in cascade infinitely.

Required by the client end in current level or the management center system in the level above, the management center can ask its subordinate management centers or DVS server to send video stream. Video relay servers can forward video stream from the subordinate DVS servers or video relays to users of the client end in the current level (or management center) or video relay servers in the level above. Video relay server, same as DVS server, also can broadcast and multi-cast and meet the requirement of all kinds of multi-level remote monitoring system. Simply speaking, we can treat a video relay server as a virtual DVS server. When we project the image from a DVS server to a video relay server, all connection requests from client ends or the management center to the DVS server can be carried out directly via the video relay server.

Run the desktop icon

to open the setting of stream relay server to add a relay server. A relay server that is to relay data must be added into the directory server. Only the devices that add and enable the relay server can transfer data via the relay server.

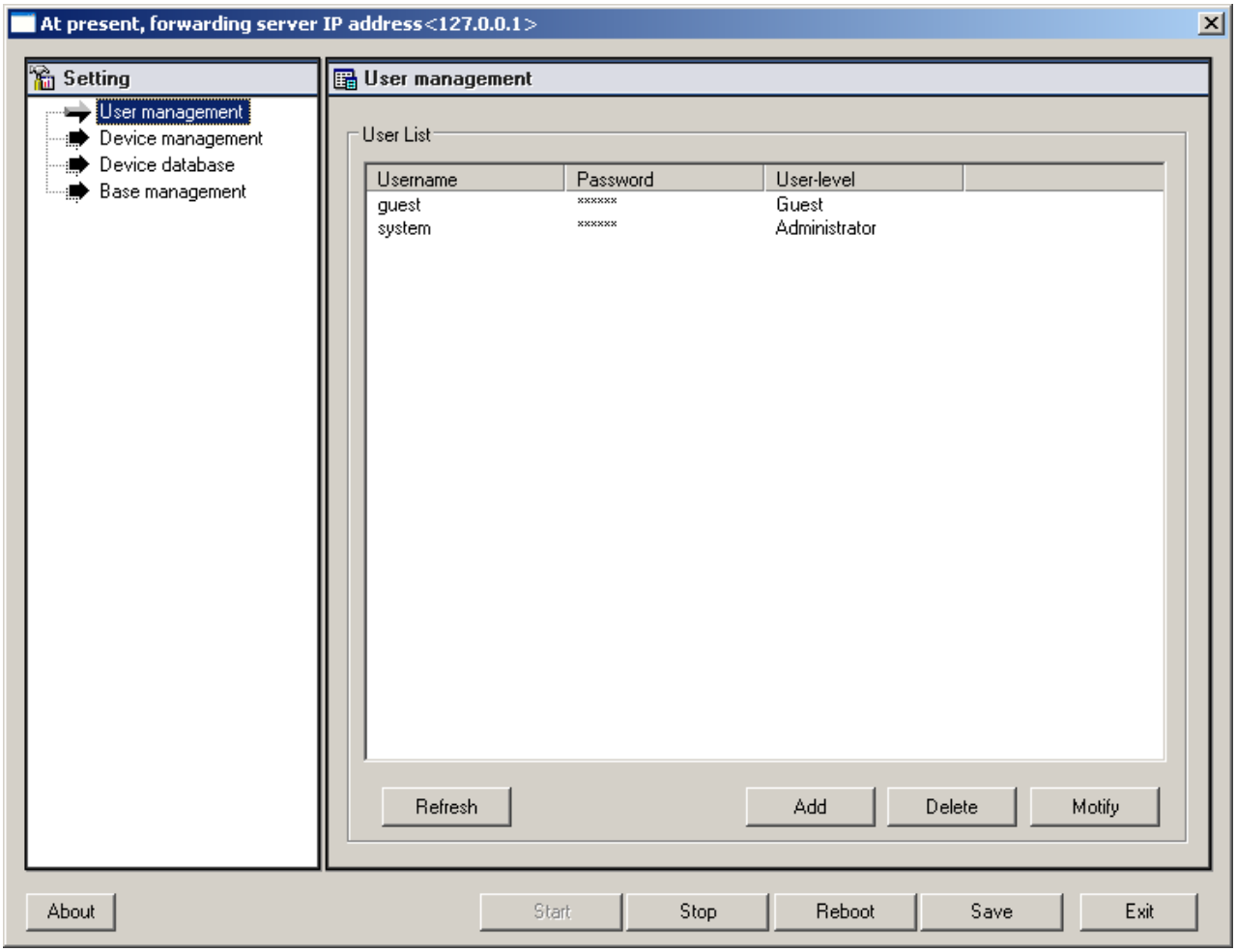


Figure 7-1

In the Relay device management, click “Add” to add the terminal devices for relay.

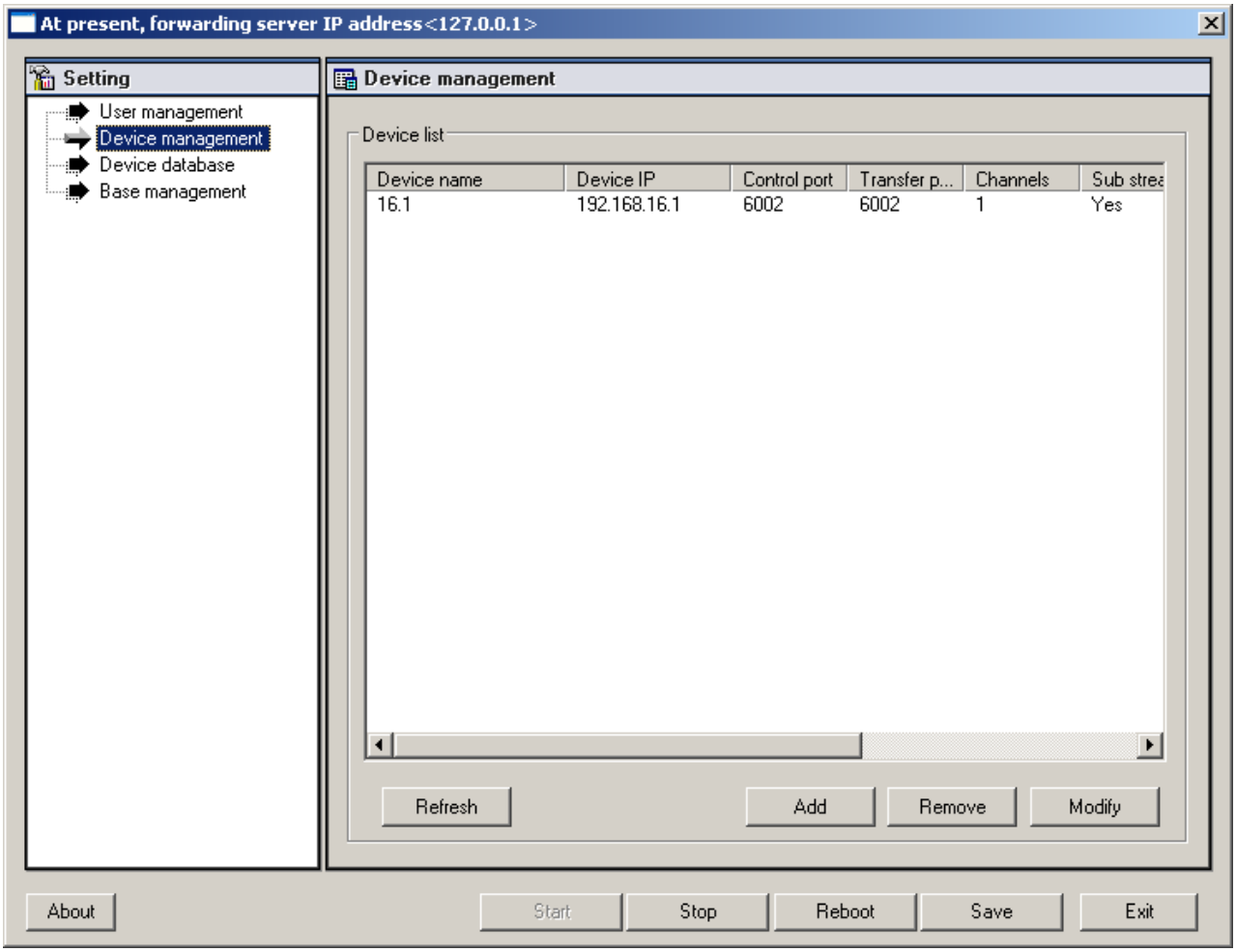


Figure 7-2

At the first time of entering device management, it is required to add terminal devices and then fill in the frontend Device Name, IP address, control port, transfer port, channel number, logon user, logon password and device ID.

Enable relay server: It is a cascaded connection between two levels of relay server. Multiple relay servers are required to forward data in a large-scale network.

After completion of addition, it is able to change and delete the added devices.

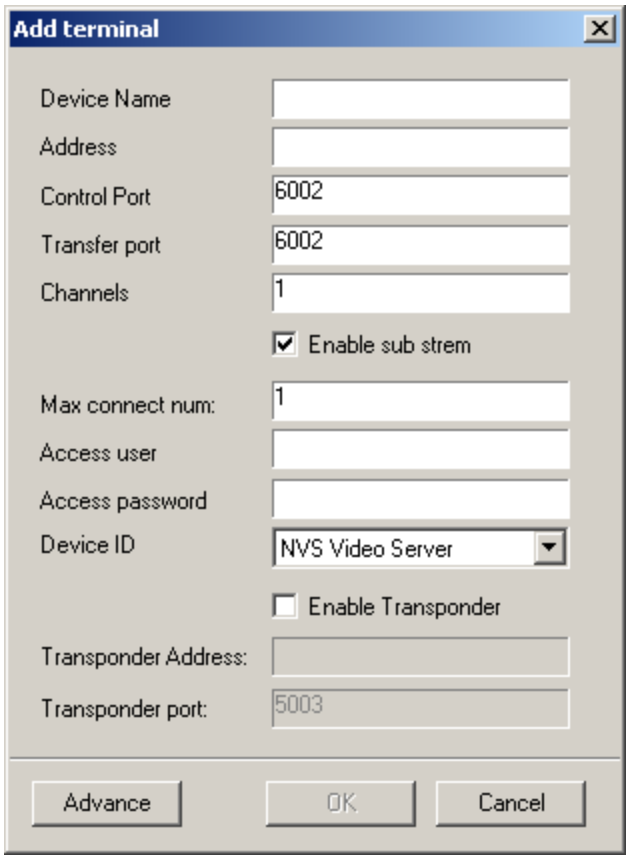


Figure 7-3

Device database management is to backup, recover and delete the current database.

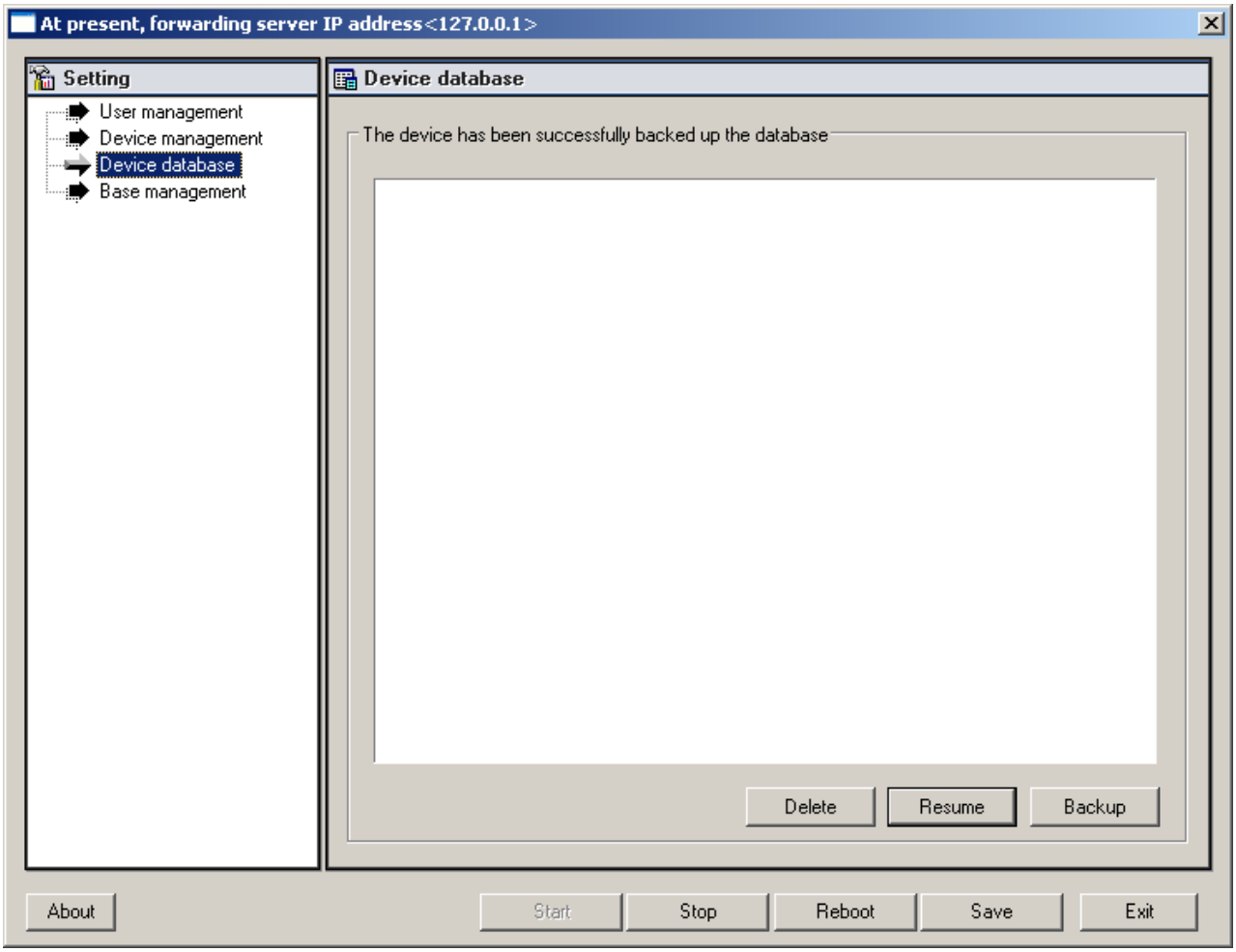


Figure 7-4

Enabling stream media relay server status can view the connection status of the current relay server.

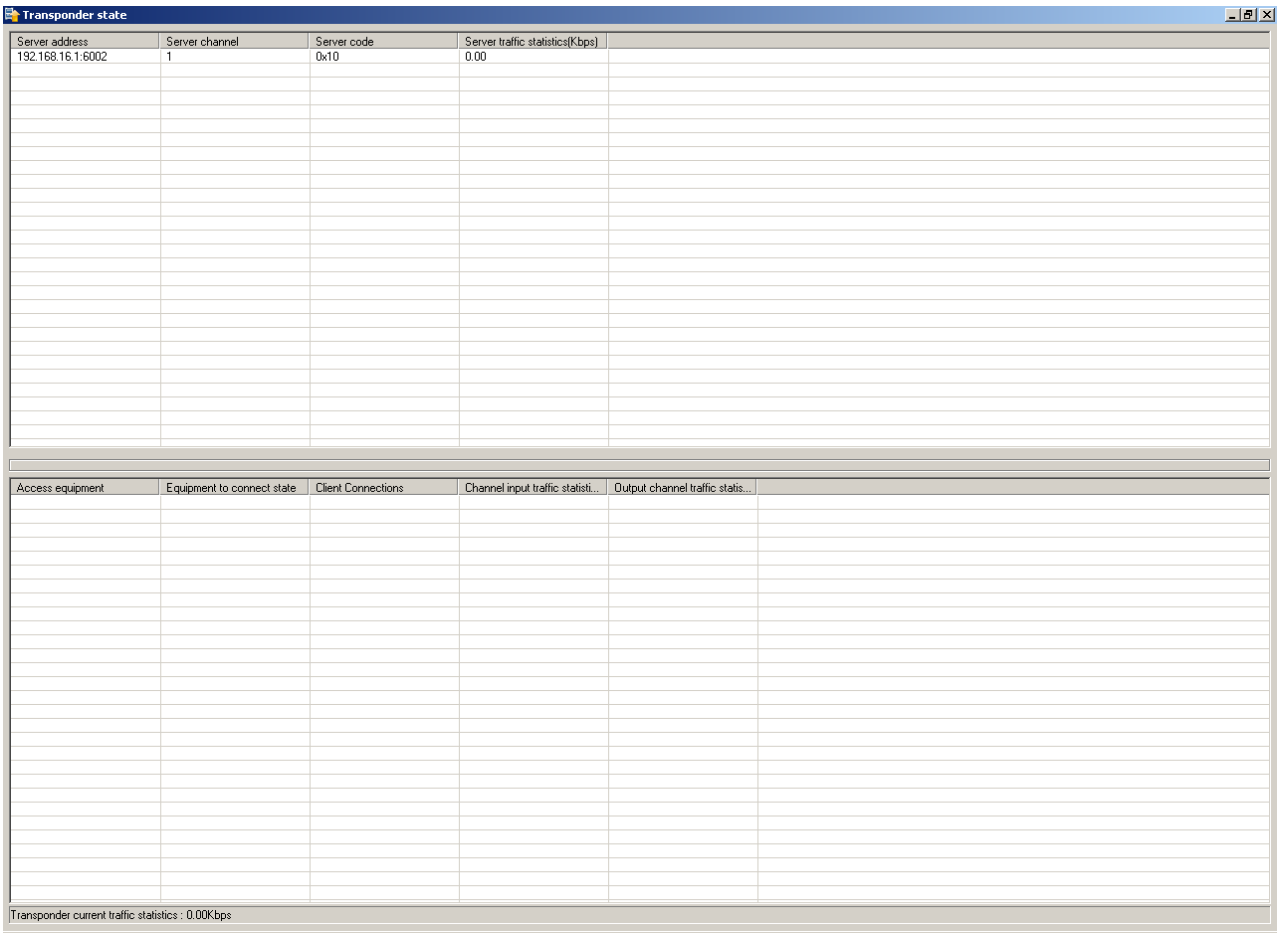

Transponder state
Server address
Server channel
Server code
Server traffic statistics(Kbps)
192.168.16.1:6002
1
0x10
0.00
Access equipment
Equipment to connect state
Client Connections
Channel input traffic statisti...
Output channel traffic statis...
Transponder current traffic statistics : 0.00Kbps

Figure 7-5

Chapter 8 Replay Video File

8.1 Summary of Play Interface

The player can be opened in the management center by the menu shortcut key – player switching and the desktop shortcut key – centralized storage file playing. Its interface is as following, divided into video area and keystroke control area.

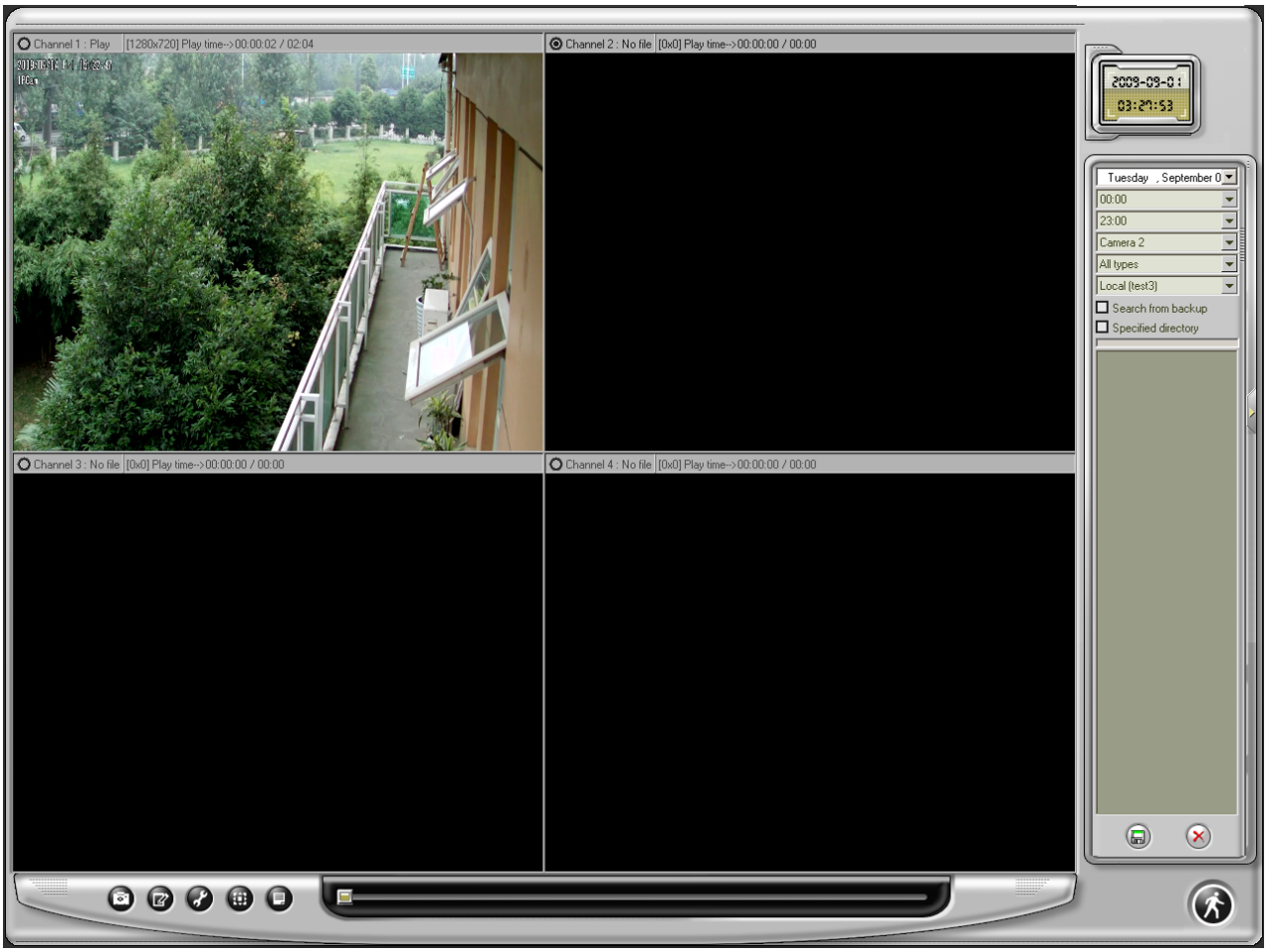


Figure 8-1

(1) Keystroke control area of player: there are icons as following on the left bottom of video area.

: Capture picture – capture and store the video image that is being played;

: Image processor – process the captured images;

: Enter setting – set up the basic setting for player, server setting, language setting and other settings;

: Full screen display – display the video images that are being played in full screen;

: Control panel switch – to control pull and push of control panel on the right.

(2) Single channel control:

Functions of single channel control area: Play, Pause, Stop, Frame forward (Forward one frame), Fast play, slow play, Segment forward, Segment backward, only valid in a single play window.

(3) Multi-channel control:

Multi-channel control function can control the play of multiple windows . The system supports multi-channel play, multi-channel stop, multi-channel pause and synchronized play of all display frames.

8.2 Play Locally

The system can support many kinds of methods for retrieval and play. There are ways to enter recorded video file retrieval management: click the panel in the hidden area on the right or right click mouse and select “Control panel” button from the popup menu. The control panel is as in Figure 8-2.

Ways to retrieve recorded video files:

- Retrieve according to time range - start and end time
- Retrieve the channel number of video camera
- Retrieve according to recorded video type: all video types, including constant-rate recorded video, recorded video by motion detection, recorded video of alarming, manually recorded video and fingerprint protection-canceling video.
- Retrieve by selecting “Search backup data” or “Select specified searching directory”
- Search backup file
- Search specified directory

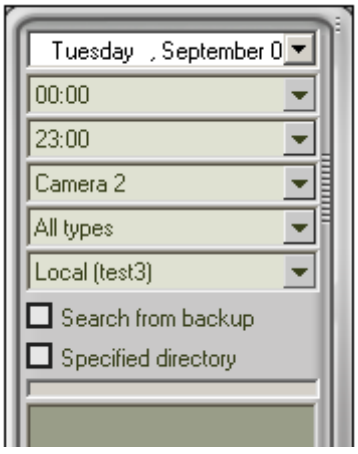


Figure 8-2

8.3 Play remotely

The system supports local retrieval and the function of playing the recorded files on remote host machine. The way to set the functions is as following,

(1) Set up the address of remote server: Click Setting button to select “DVMS Setup” label;

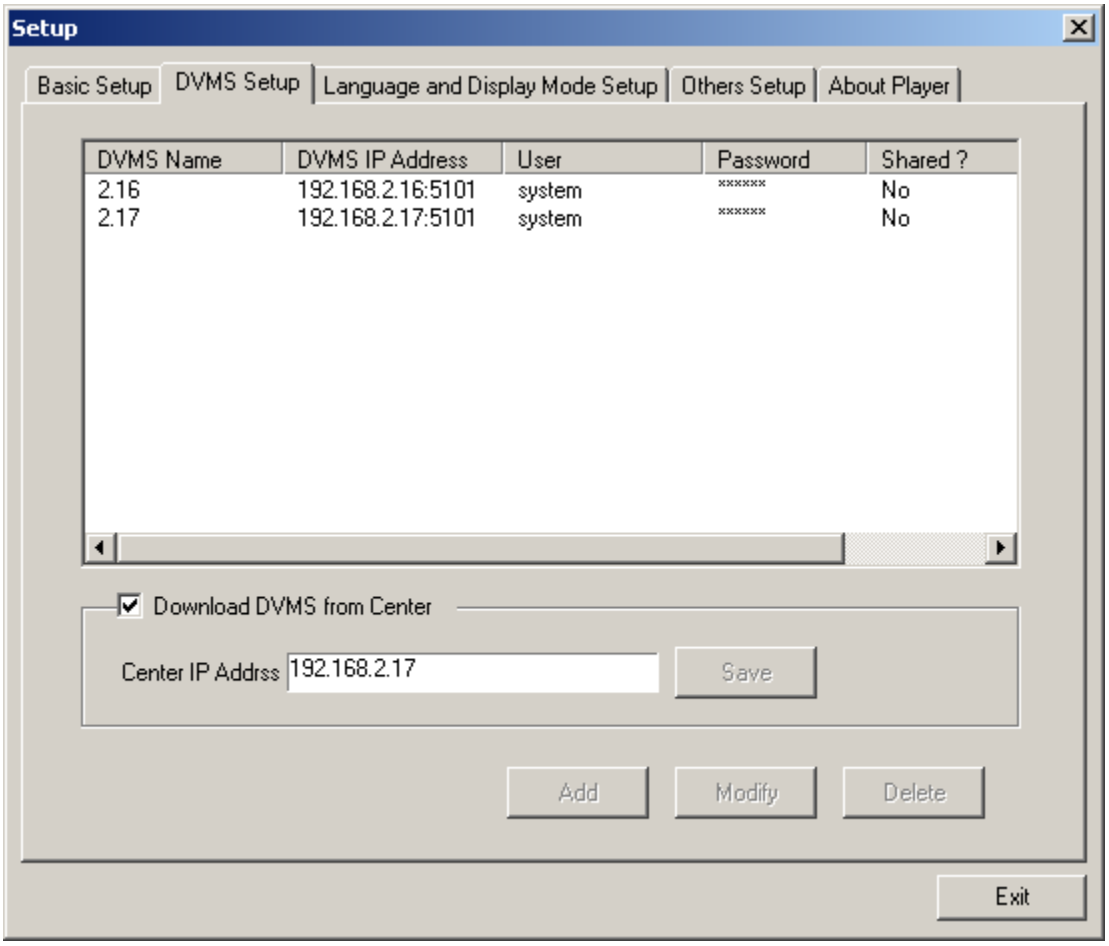


Figure 8-3

Check “Download server information from directory server” to add the address of the directory server. The system can download and import the device list automatically from the directory server.

(2) Select server: Select “Server type” pull-down list from the retrieval box to select the name of the server that is to be connected, then all the recorded video files satisfying the search condition shall be listed in the file list area.

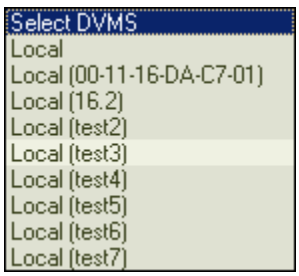


Figure 8-4

"Select server" is for remote recorded files. Then click to choose downloading the files from the directory server.

"Local machine (10.13)" is the frontend device file recorded on local machine.

8.4 Capture and Process picture

When playing the recorded video file, it is able to click Capture picture button on the play to capture images.

When the video is playing the image required, click Capture picture button to complete the picture capturing; and click Image processing button to call image processing program to view images and print them out in later stage. Image processing program can complete the operations like image rotation, flipping, contract adjustment, etc., and also can convert BMP and JPEG formats. The images can be printed out directly from the image processing program.

: To capture snapshot images : To process images

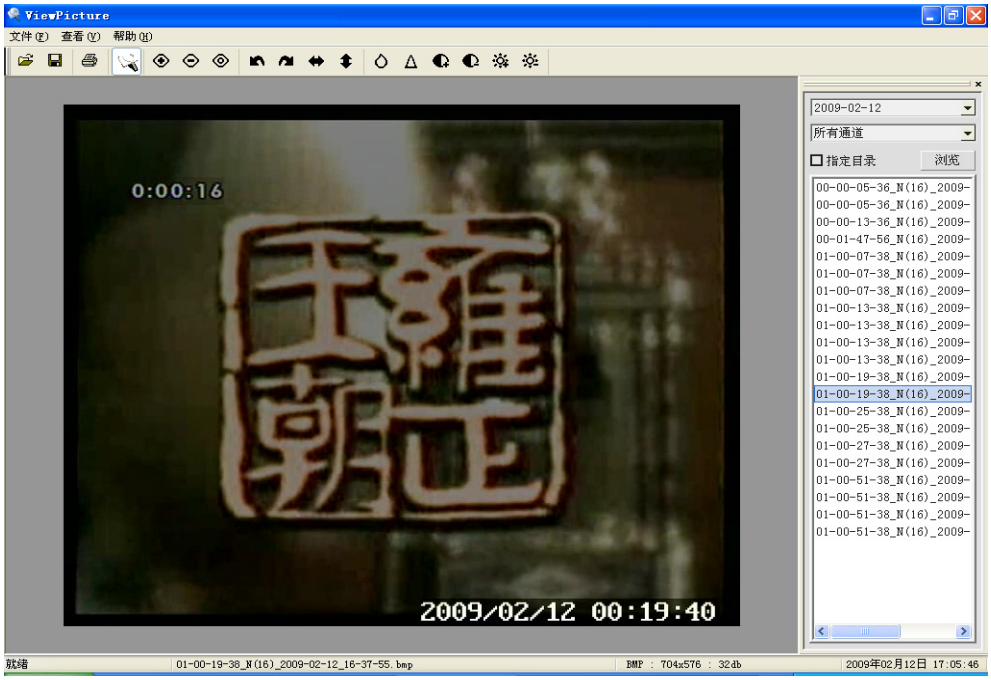


Figure 8-5

8.5 Play Parameter Setting

Click button at the left bottom of the main interface to enter play parameter setting:

(1) Basic setting: To set up image quality of each window and whether to enable image flipping and the directory for storage of play files, and select immediate validation type.

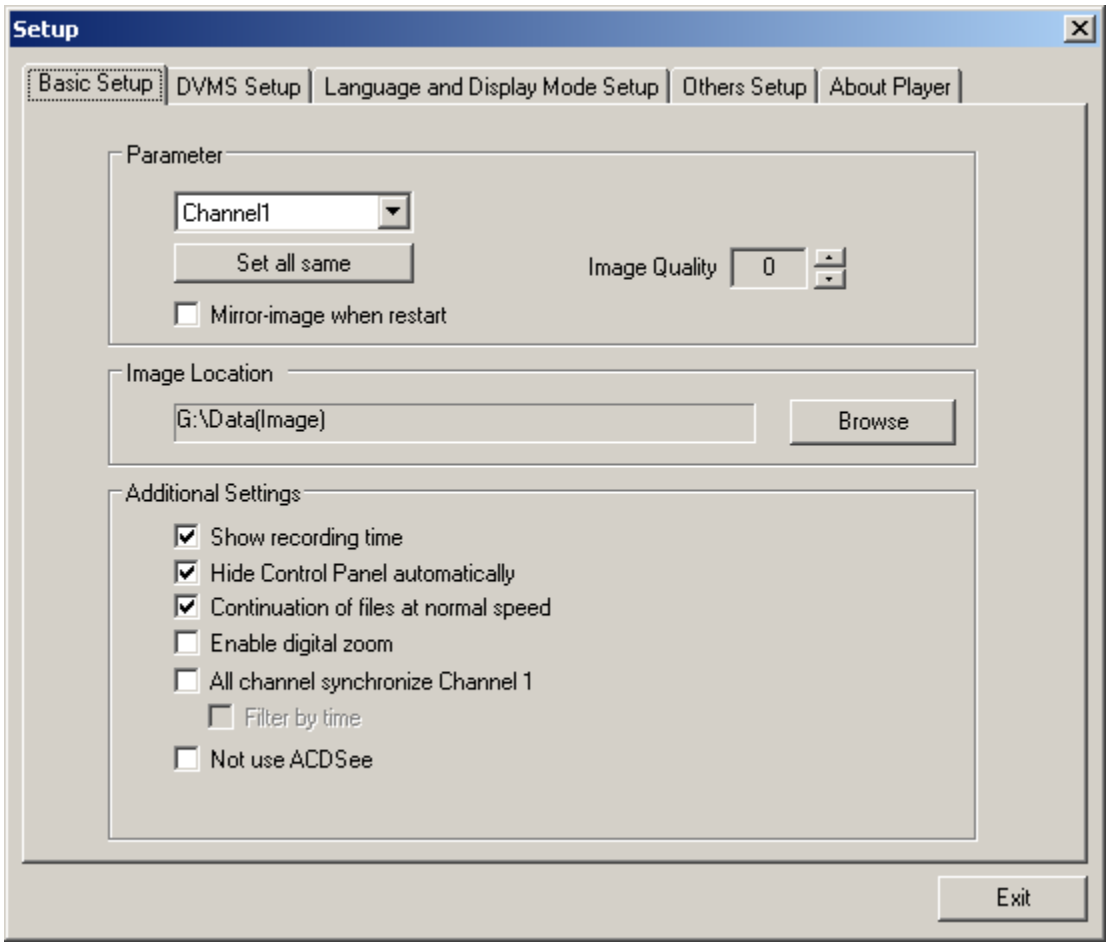


Figure 8-6

Image quality: Set up image playing quality of the default window, the range from level 0 – 6. The level 6 represents the highest image quality.

Mirror-Image: Video images are played in a flipping way in some systems. To enable this function can correct the flipped images manually.

Image Location: Set up image storage directory for snapshot pictures.

Note: Higher the value set in “Image quality” is, more system resources are consumed.

(2) Language setting:

Language selection: Select the language for display. The default is simplified Chinese.

(3) Other settings:

Extended configuration options: To set enabling play status display when starting up next time, automatically opening control panel next time, obtaining channel name, locking screen ratio, displaying the complete time length of recorded video data, and having same searching parameters for all windows.

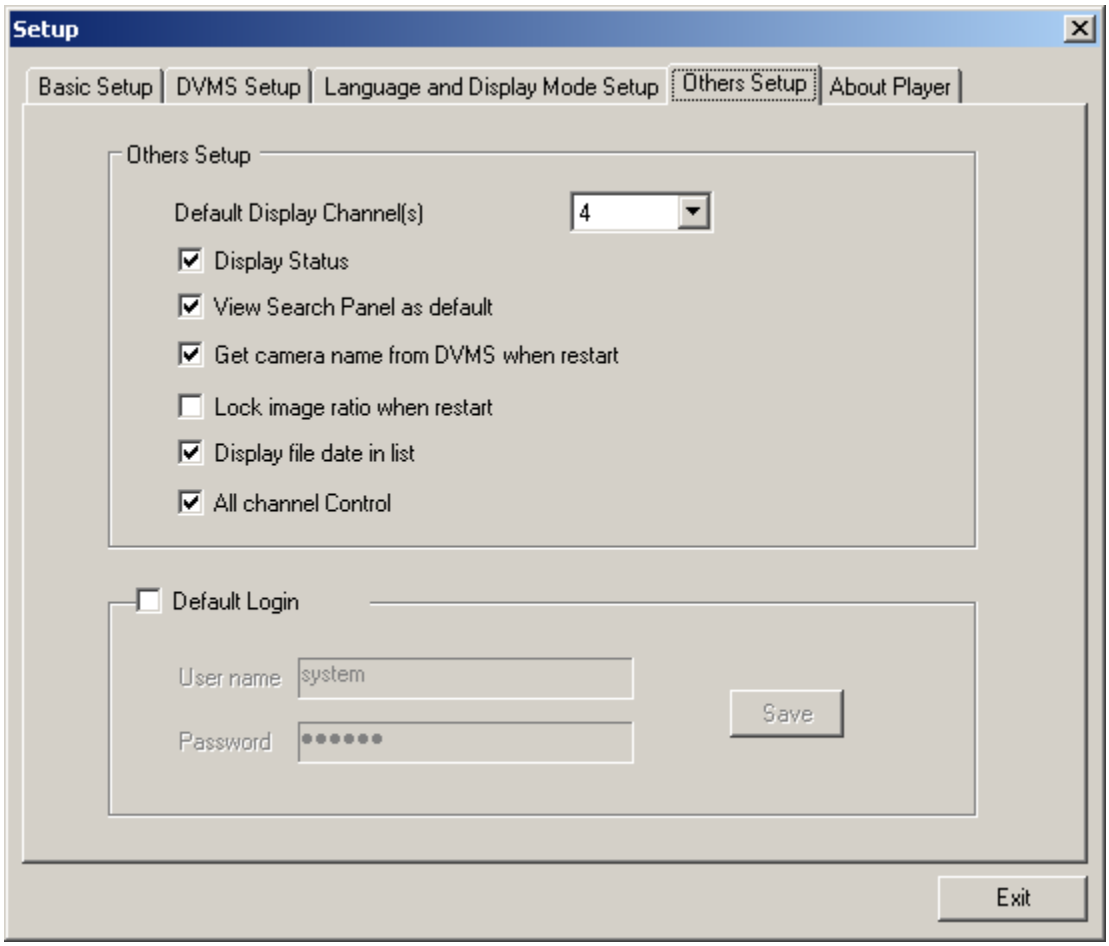


Figure 8-7

8.6 Right-click Menu and Play Control

Right click mouse in the window for playing to find most of buttons on the interface, as shown in Figure 8-8.

For example, flipping image: when playing recorded video files on some operating systems or computers installed with other video plug-ins, images may be flipped upside down. It only needs to select “Flip” from the right-click menu to correct the image display.

Channel 1 : Play
[1280x720] Play time-->00:00:22 / 02:05
Channel 2 : No file
[0x0] Play time-->00:00:00 / 00:00
Channel 3 : No file
[0x0] Play time-->00:00:00 / 00:00
Channel 4 : No file
[0x0] Play time-->00:00:00 / 00:00
View Control Panel
Hide Channel Info
Audio Off
Play
Pause
Stop
Fast All
Slow All
Play All
Play All Synchronously
Pause All
Stop All
Single Channel
Play Format
Lock Image Ratio
Turn Image
Cancel Zoom
Tuesday , September 0
00:00
23:00
Camera 1
All types
Local (test3)
Search from backup
Specified directory
03-24-07_H.mkv
03-26-12_H.mkv
03-28-16_H.mkv
03-30-20_H.mkv

Figure 8-8

Chapter 9 Related Operations of High Definition Network Devices

9.1 Addition of High Definition Camera in Directory Server

Firstly it is required to add High Definition video camera into the directory server,

Product code of High Definition video camera should be High Definition Network Video Camera/NVS Video Server;

Device name can be defined as required;

IP address is IP of the added High Definition video camera;

Port No is to fill in the data port of the High Definition video camera;

Device username is to fill in the authorized username; device user password is to fill in the corresponding password of the authorized username; channel number is to fill in the channel number supported; users who support sub-code stream can check the option of whether to have sub-code stream.

If the system needs to be connected by relay server (VTS), it is able to specify the address and port of the relay server and check the option of enabling relay server.

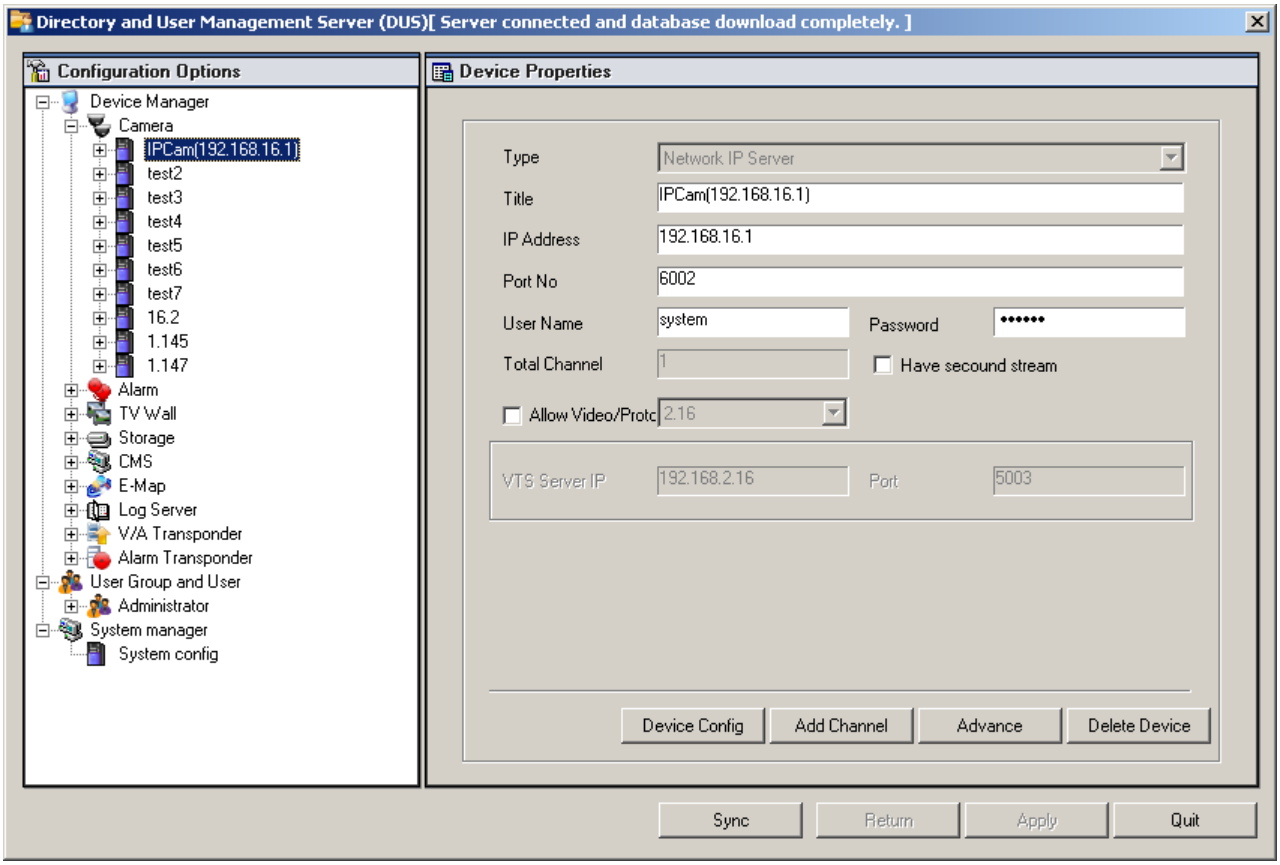


Figure 9-1

In device property setting, it is able to select whether the device has storage, whether alarm signals are reported by the device subjectively, whether to check the device online or not by PING, and whether to close alarm information of the device. Additionally, it is able to set up server special control port and server file transfer port.

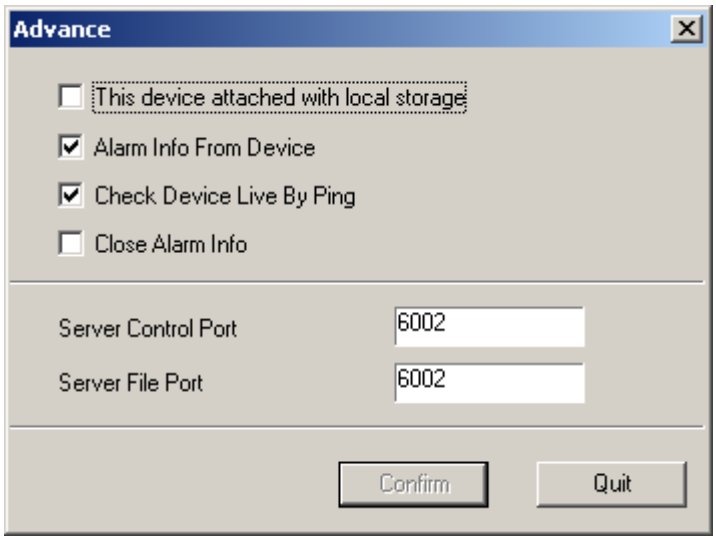


Figure 9-2

After finishing the setting, the system shall jump to viewing permission interface automatically. It is required to select viewing authorization if viewing authorization is not set by then. Click user group name to set the viewing permission for the current user group and the authorization of user to view and control video camera or video camera group.

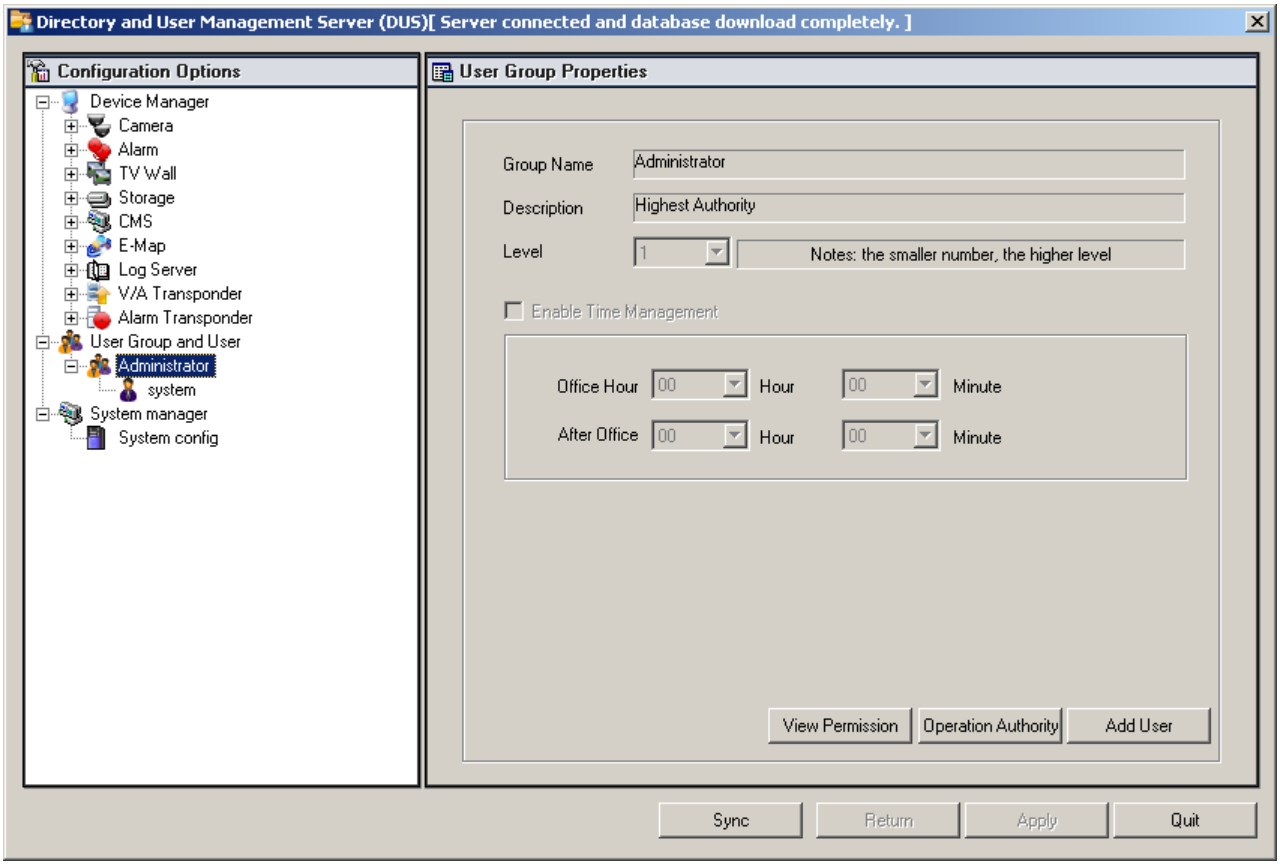


Figure 9-3

After that, it is required to set the device viewing permission for the current user group. To set video camera or video camera group that can be viewed by user is just to check the authorized camera.

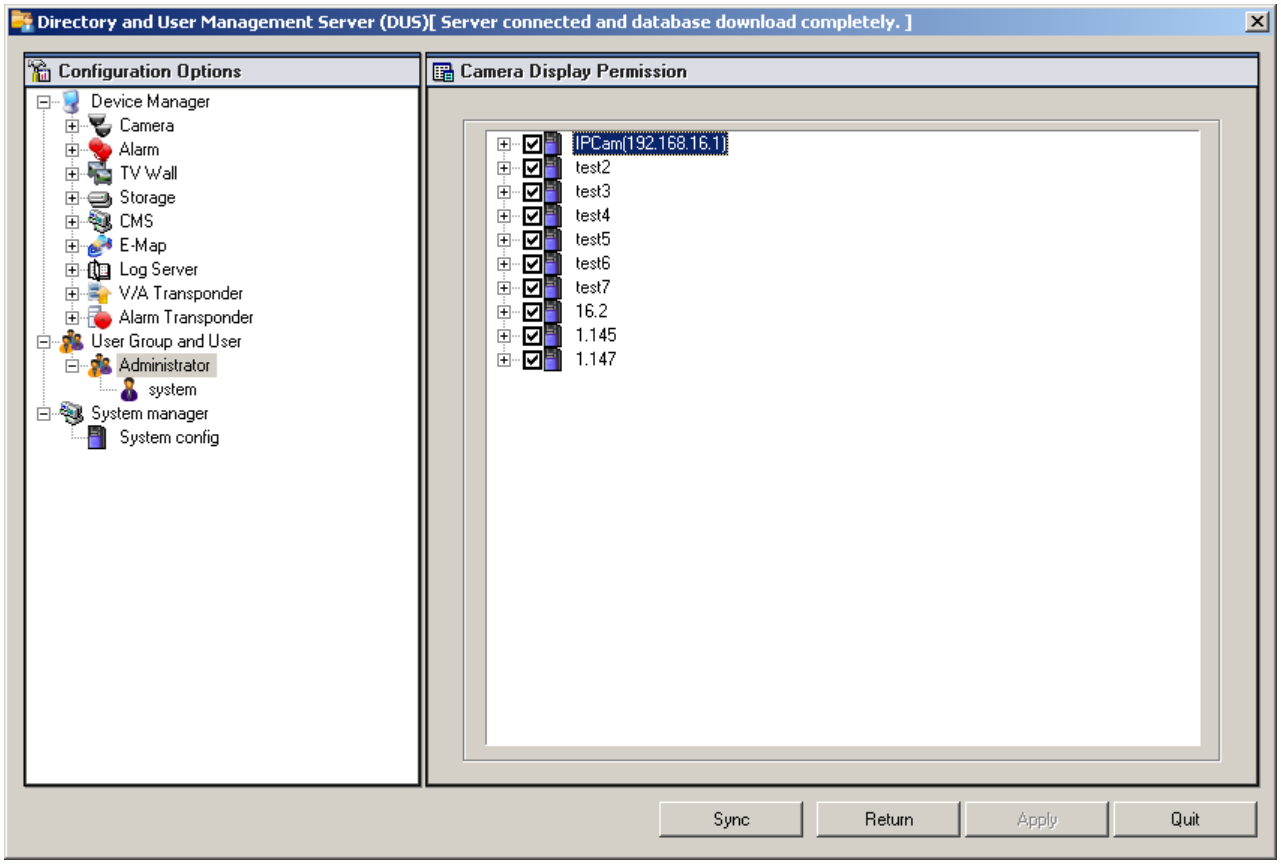


Figure 9-4

9.2 Remote Parameter Setting

After addition of information of High Definition video camera in the directory server, it is able to connect the added High Definition video camera in the management center by dragging the video camera into the video display area, as in the figure bellow.

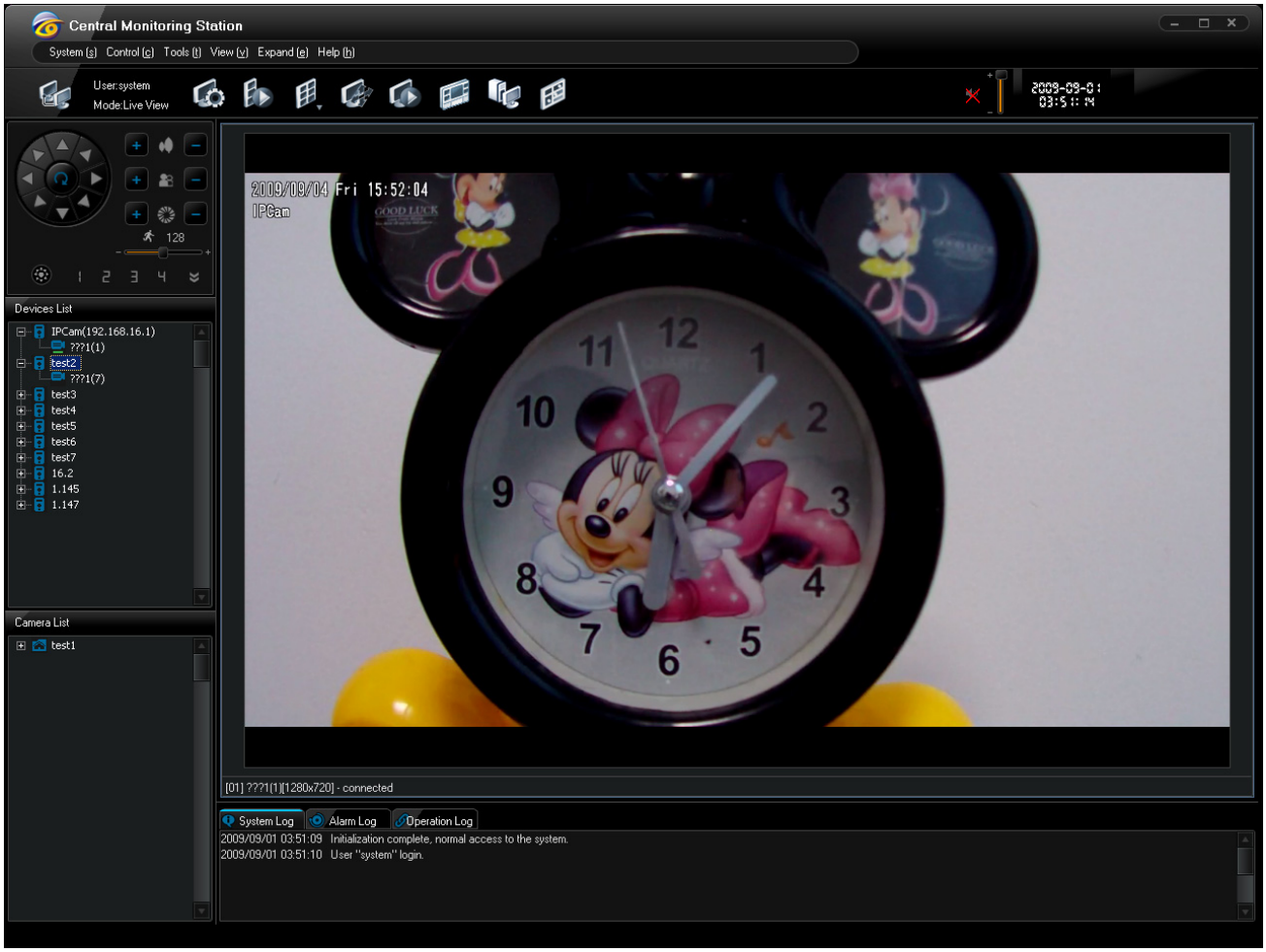


Figure 9-5

9.2.1 User Management

User can be added and deleted here. Password can be changed and authorization selected.

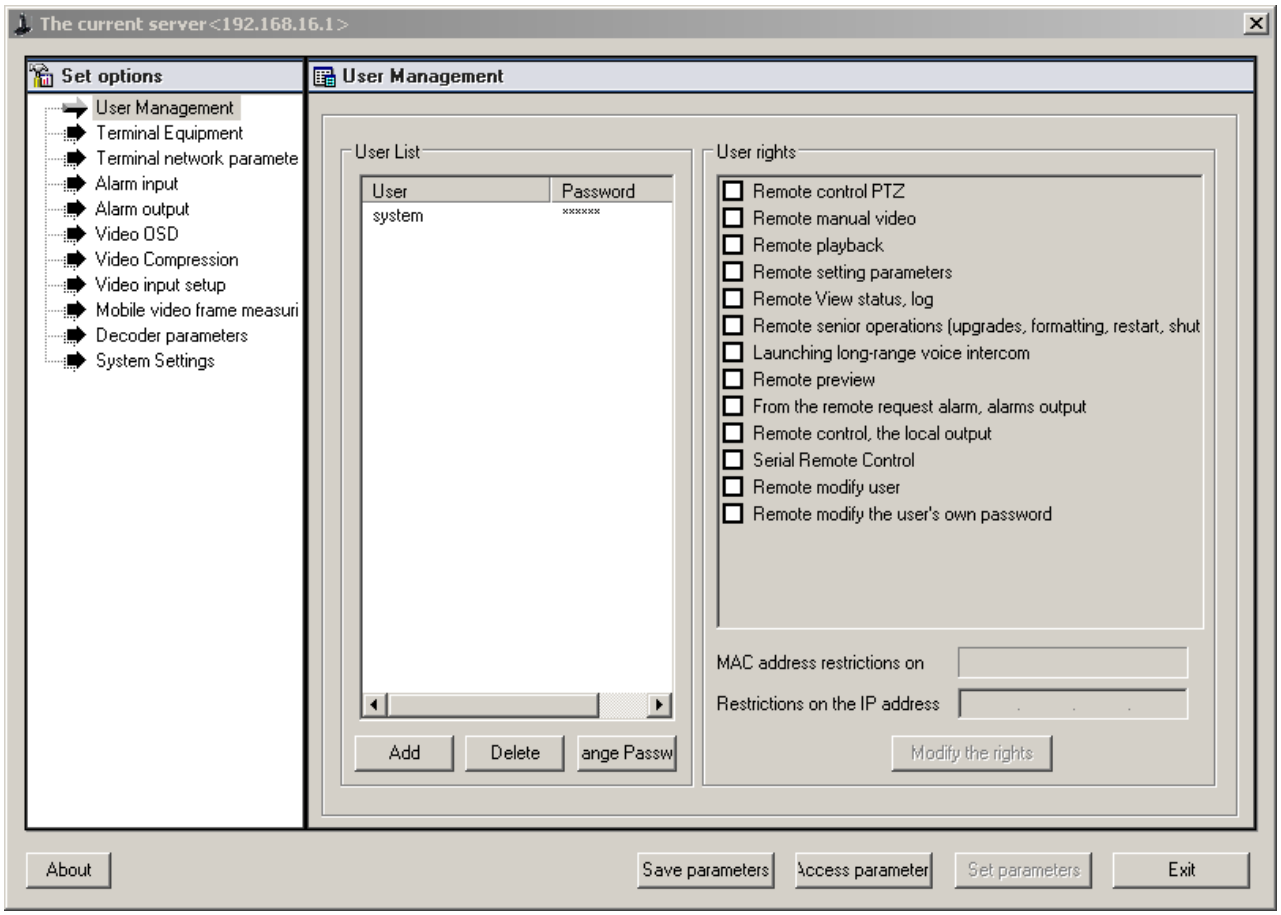


Figure 9-6

9.2.2 Terminal Device

Select a video window and enter remote parameter setting for the current server by clicking menu bar – control – remote parameter setting or right clicking in a window to select remote parameter setting. It is able to display the name of the current server, remote controller ID, video system (PAL or NTSC optional), whether to record cyclically and whether to enable phonetic talkback, as in Figure 9-7.

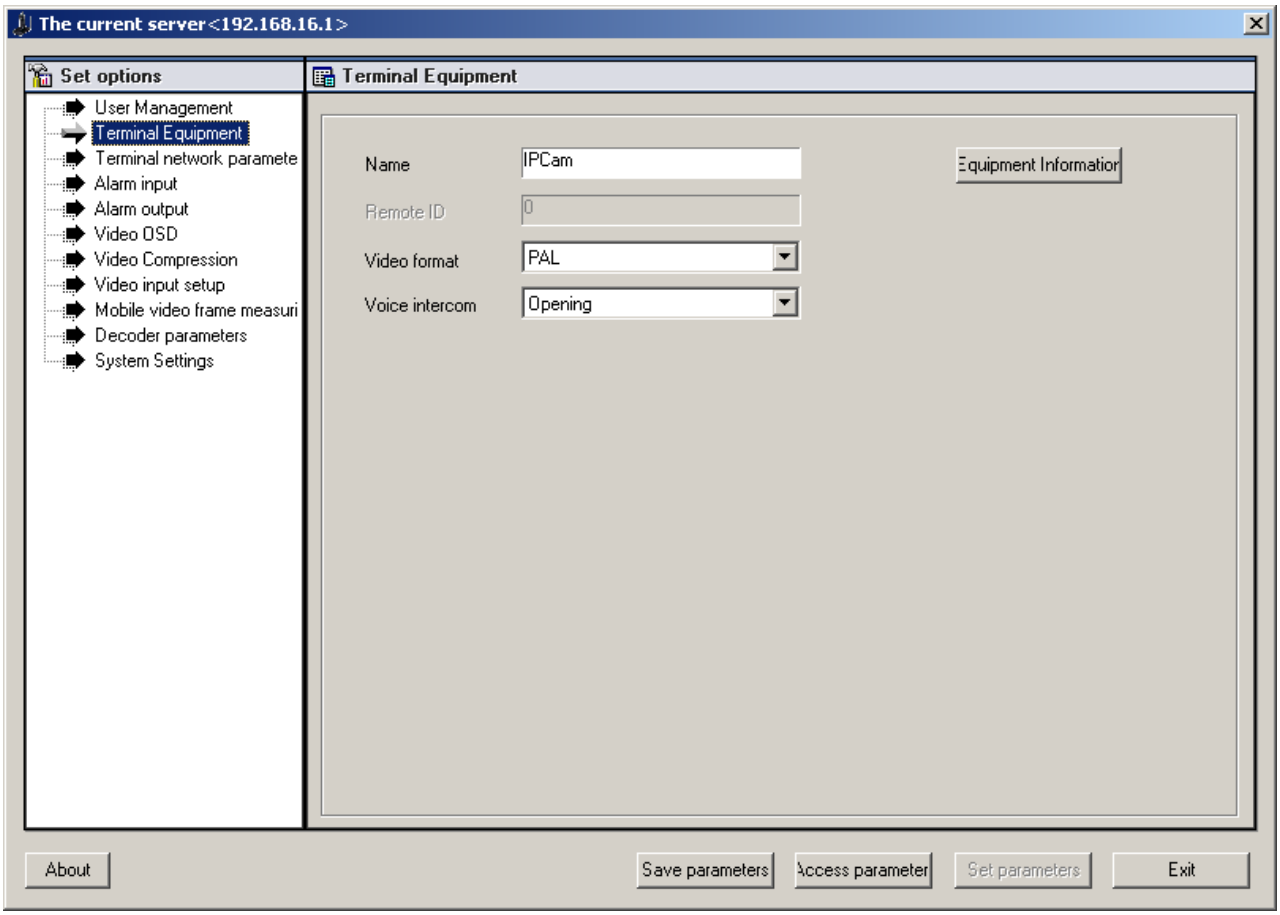


Figure 9-7

Click “Device information” button to display the detailed information of terminal devices, as in Figure 9-8.

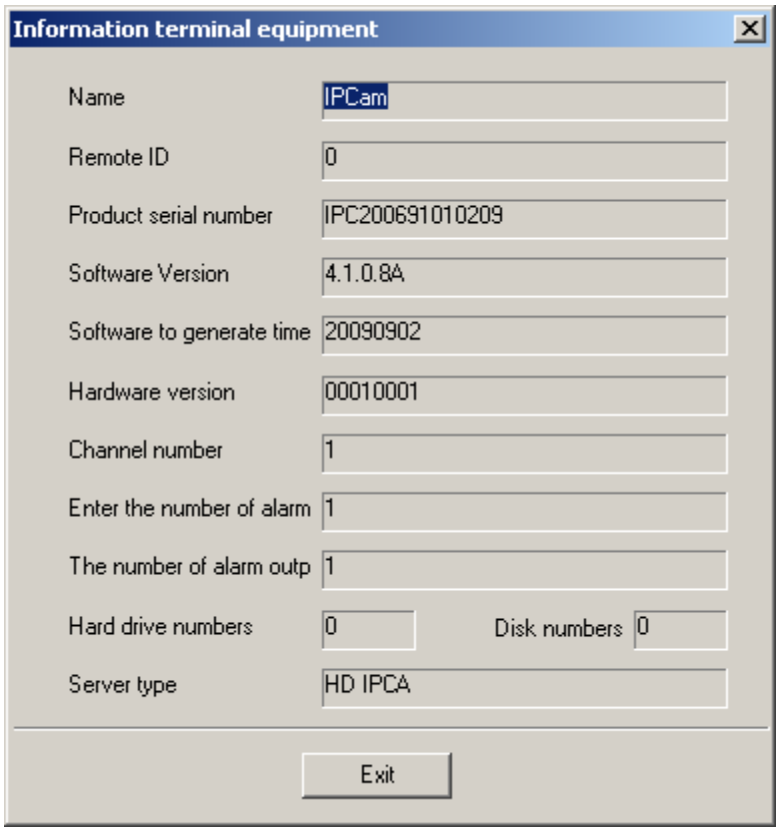


Figure 9-8

9.2.3 Terminal Network Parameter

The panel shall display the information of terminal network parameters, like network port, server listening port, DNS host machine address, and whether to enable remote management center, etc., as in Figure 9-9.

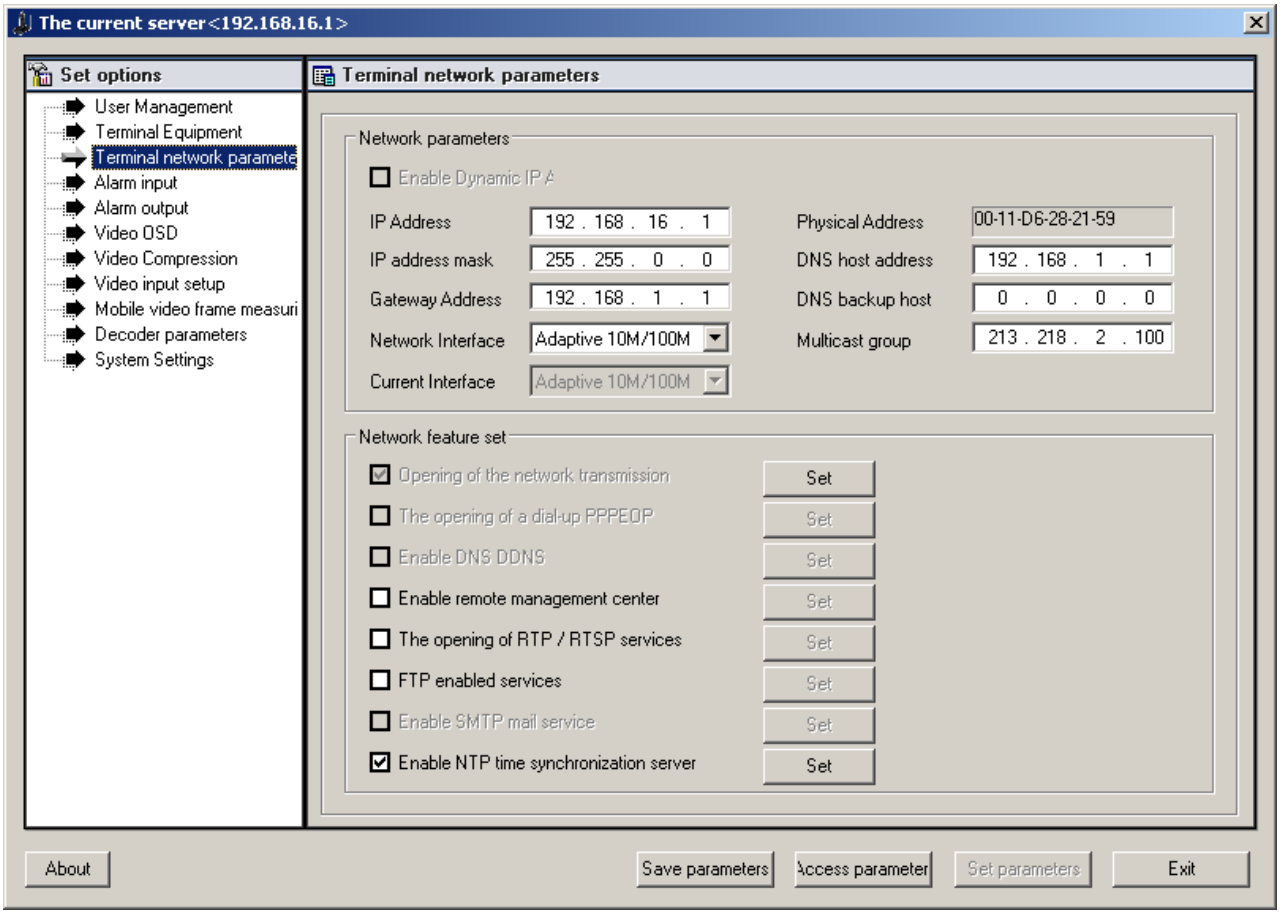


Figure 9-9

9.2.4 Alarm Input

When there is any alarm inputted, it is able to set the alarm type (normally open or normally close), whether to process alarm signal, and the method, time if processing them.

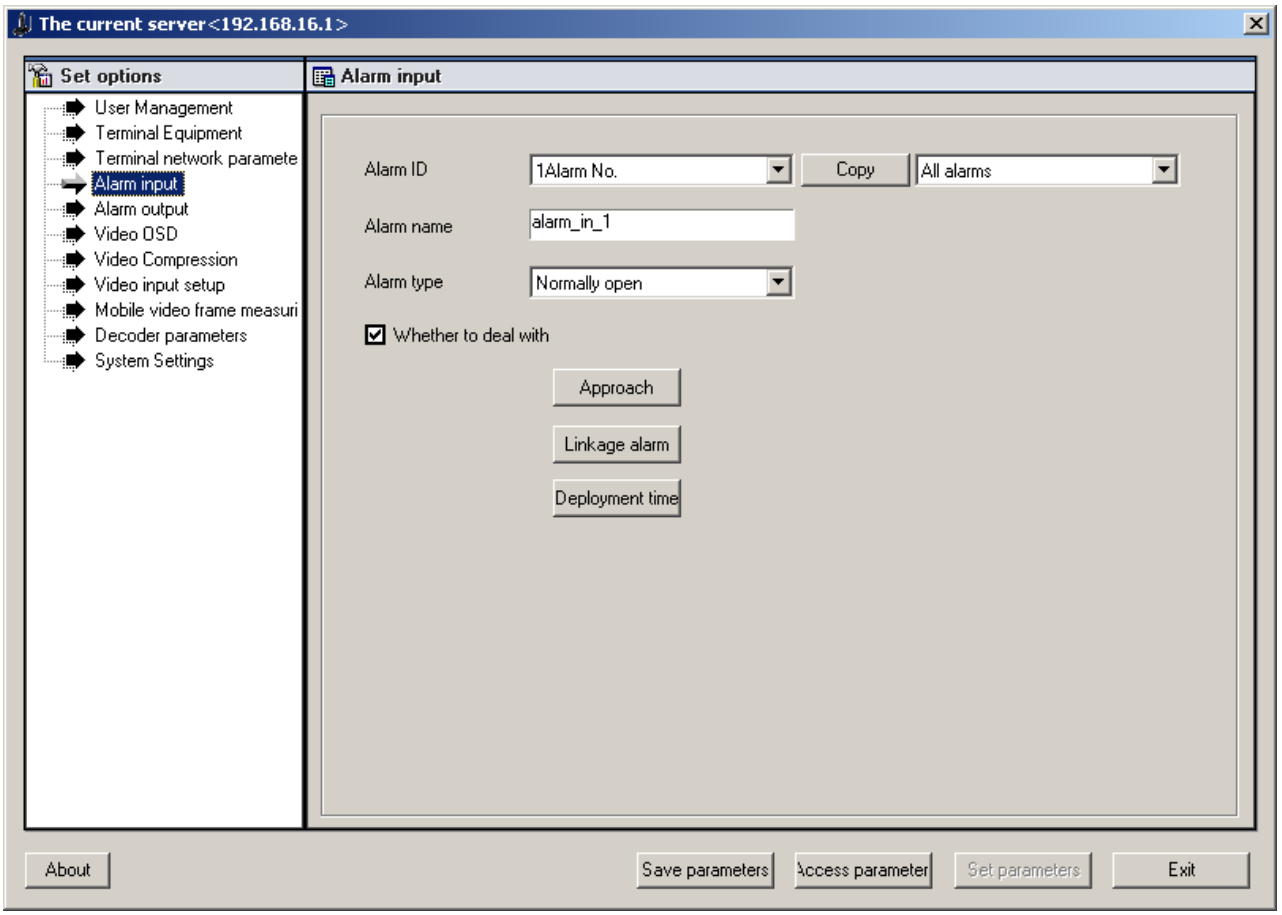


Figure 9-10

Alarm processing includes warning in a monitor, sound warning, uploading to the management center, and triggering alarm output processing, as shown in the figure bellow

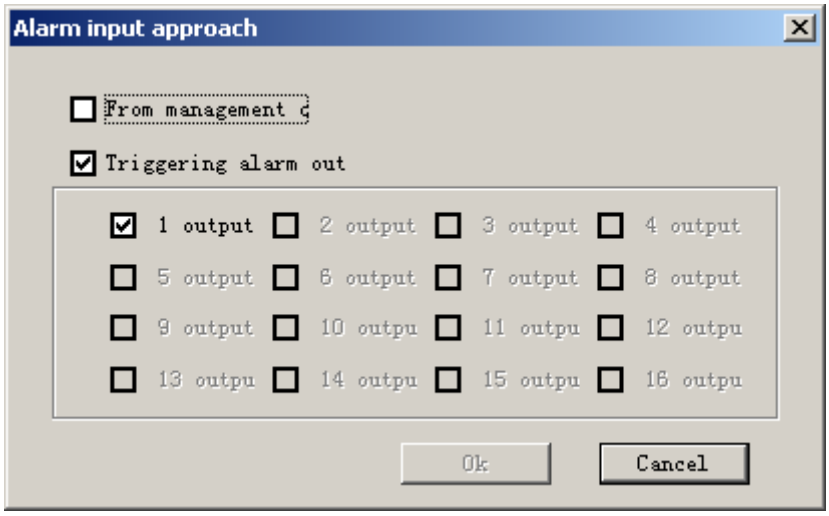


Figure 9-11

Linkage Alarm processing interface can be used to select pre-set control point and whether to record;

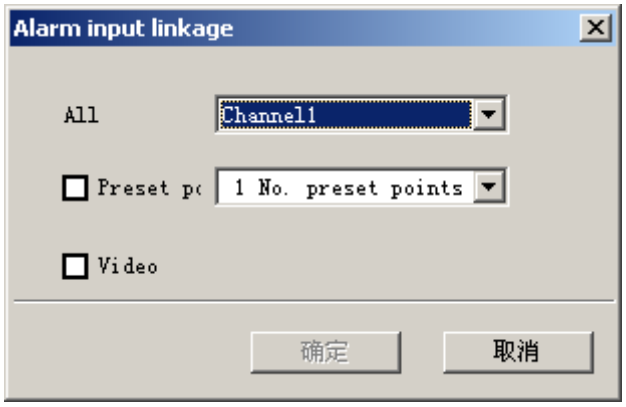


Figure 9-12

Setting protection deployment time period of alarm input: To set up the start and end time of each weekday in a week. It is able to add any time period in a day. If there is a same time period for each weekday, the setting can be copied. Time periods can be added, changed and deleted. The interface is as in the figure bellow.

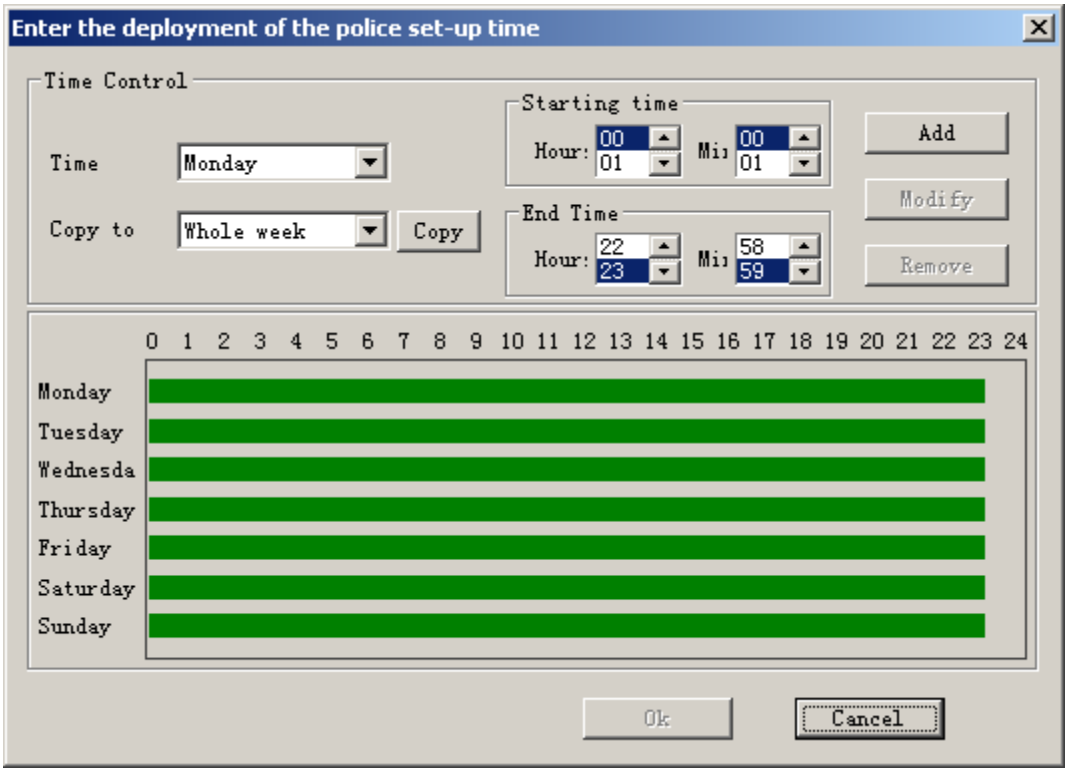


Figure 9-13

9.2.5 Alarm output

Alarm output can set up delay time of alarm output and protection deployment time period (same as protection deployment time period of alarm input).

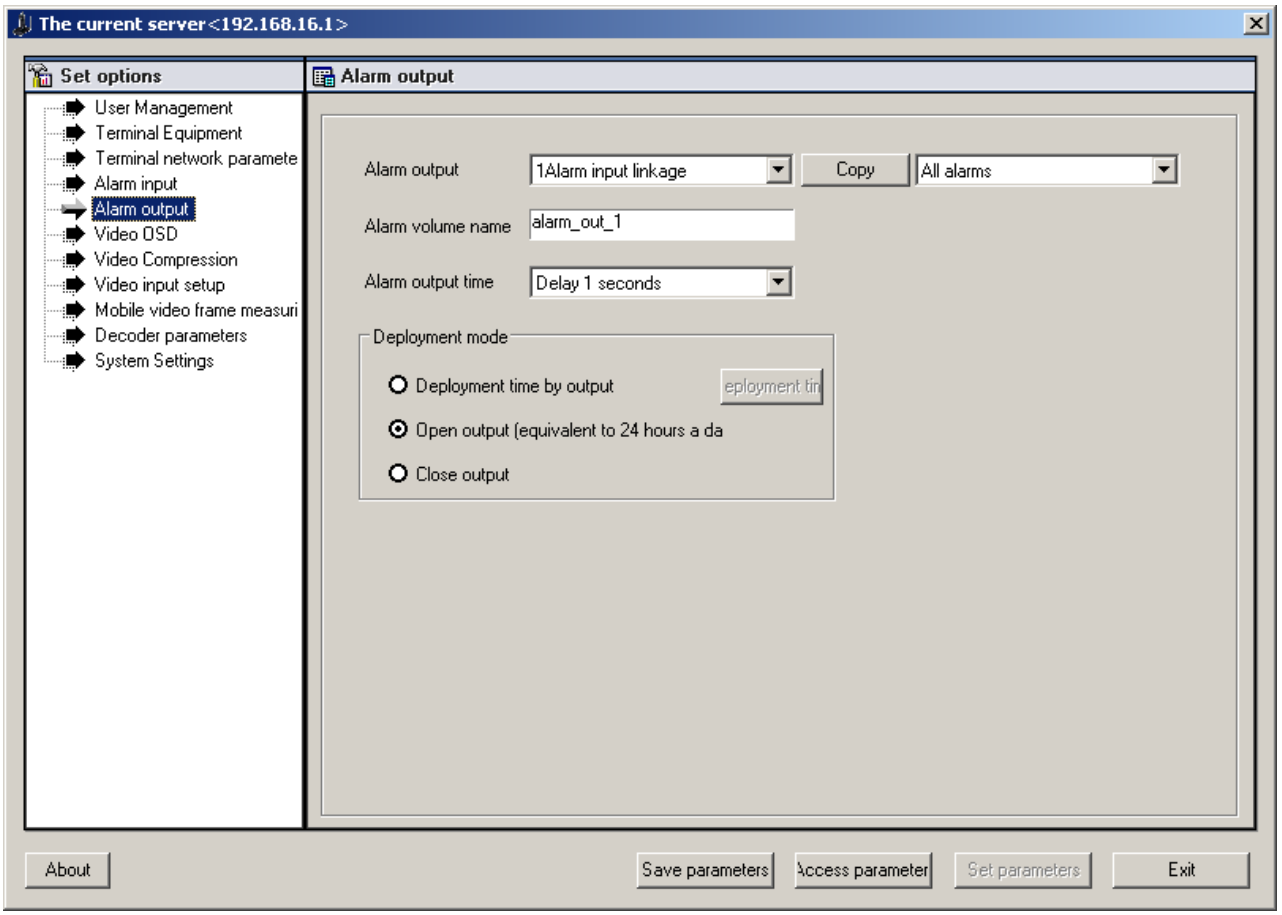


Figure 9-14

9.2.6 Remote Recording

Remote recording can select whether to enable frontend device recording and recording time. Disk information can also be obtained.

9.2.7 Video Image OSD

In video image OSD setting, it is able to select whether to overlap date and time and set up the properties, like week and overlapped channel name, etc.

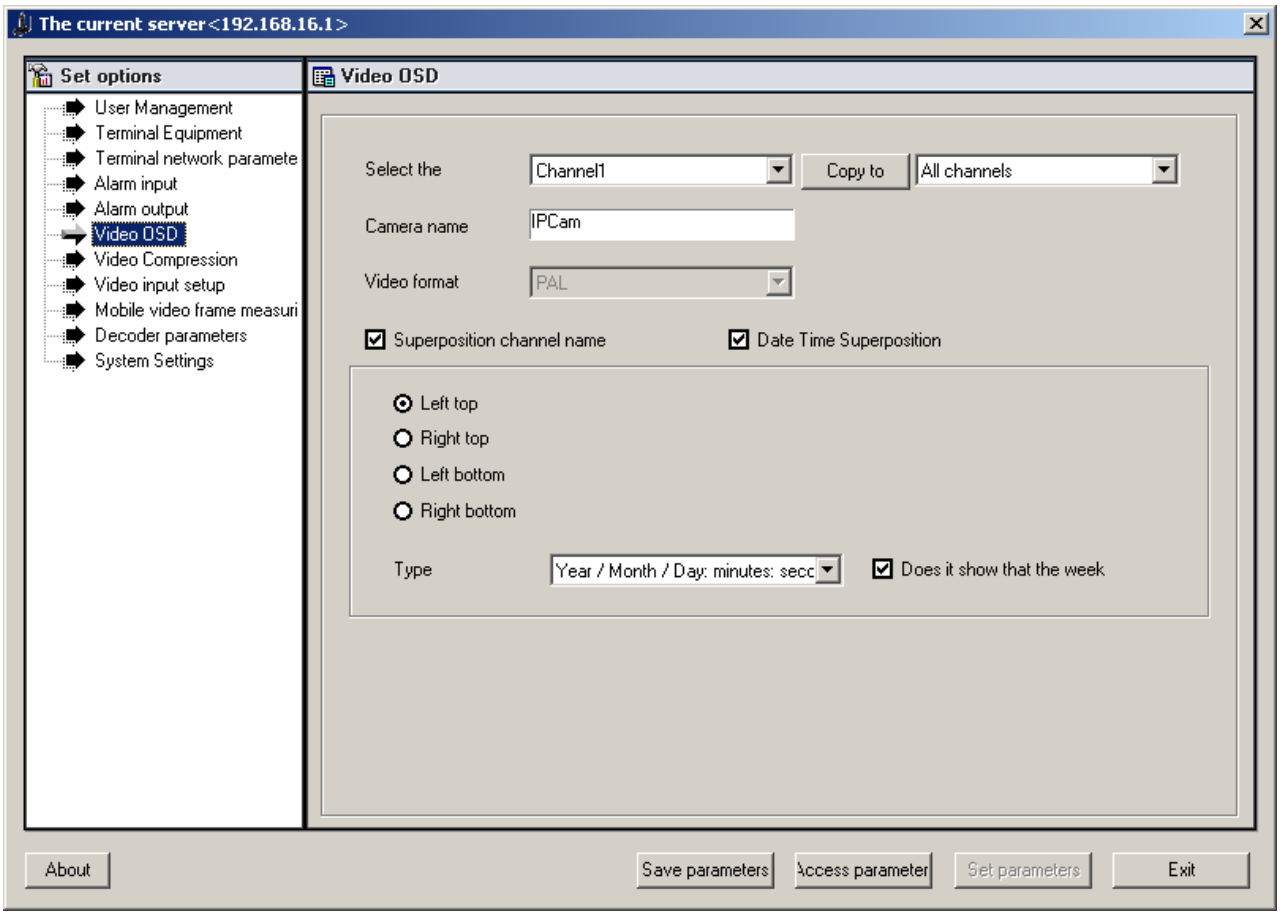


Figure 9-16

9.2.8 Video Compressing

Video compressing can set the parameters of main code stream and auxiliary code stream, as in Figure 9-17.

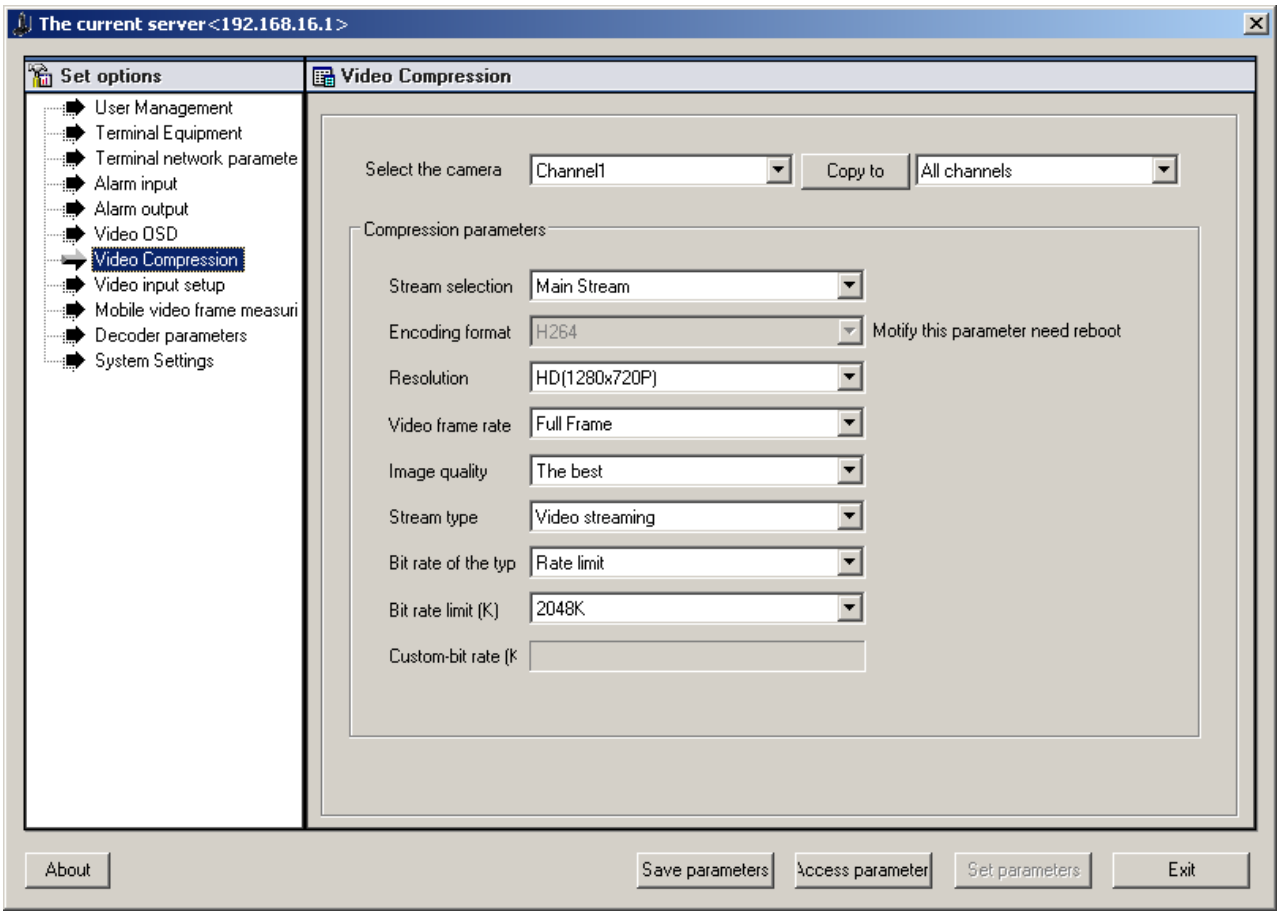


Figure 9-17

9.2.9 Video Input Configuration

Video input configuration can select video input anti-flickering mode, video color mode, image rotation, color to back-and-white mode, and electronic shutter, etc.

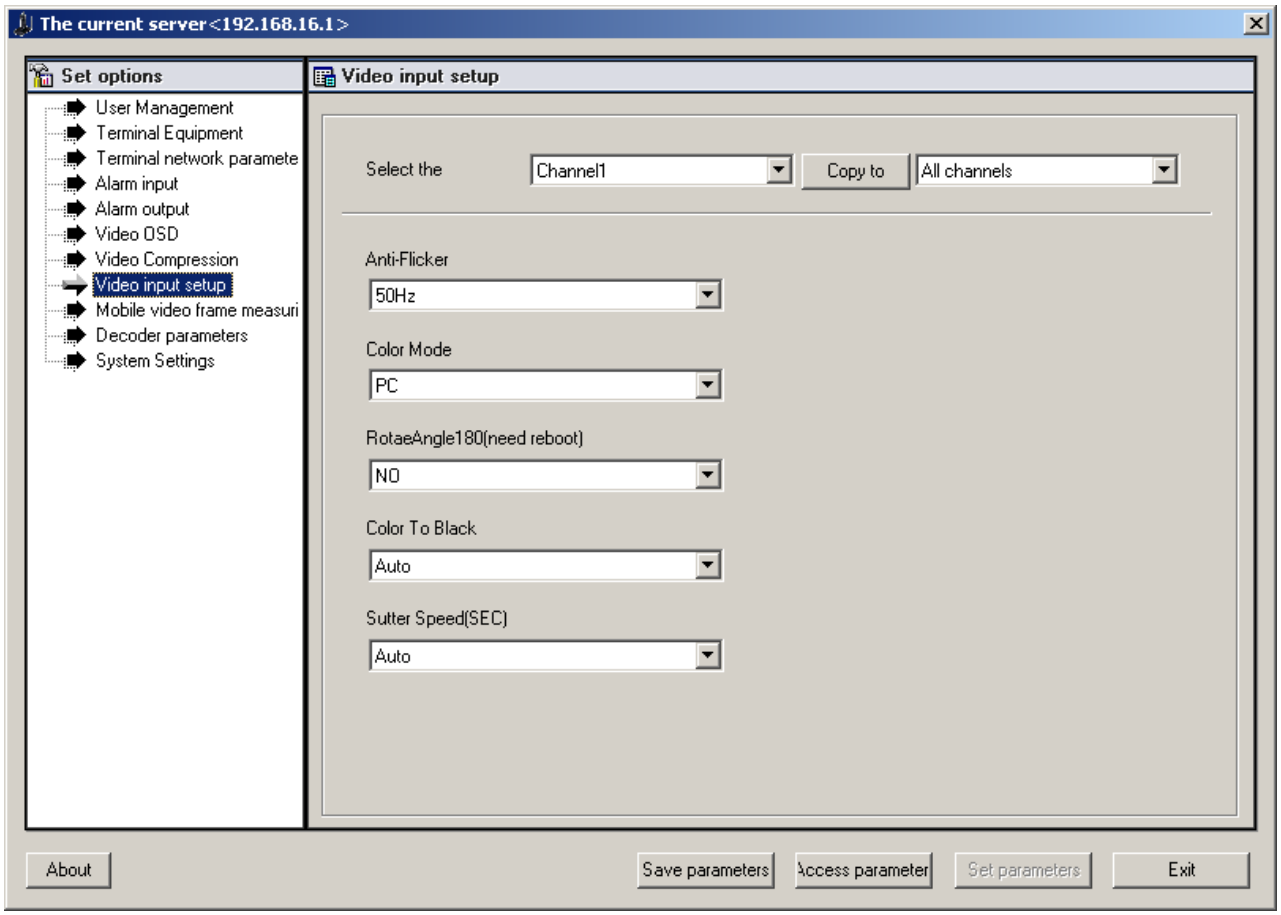


Figure 9-18

9.2.10 Video Motion Detection

In the configuration of the protection area covered by video motion detection, it is able to select processing method for motion detection and whether to adopt Linkage Alarm, and to set up the time for protection deployment.

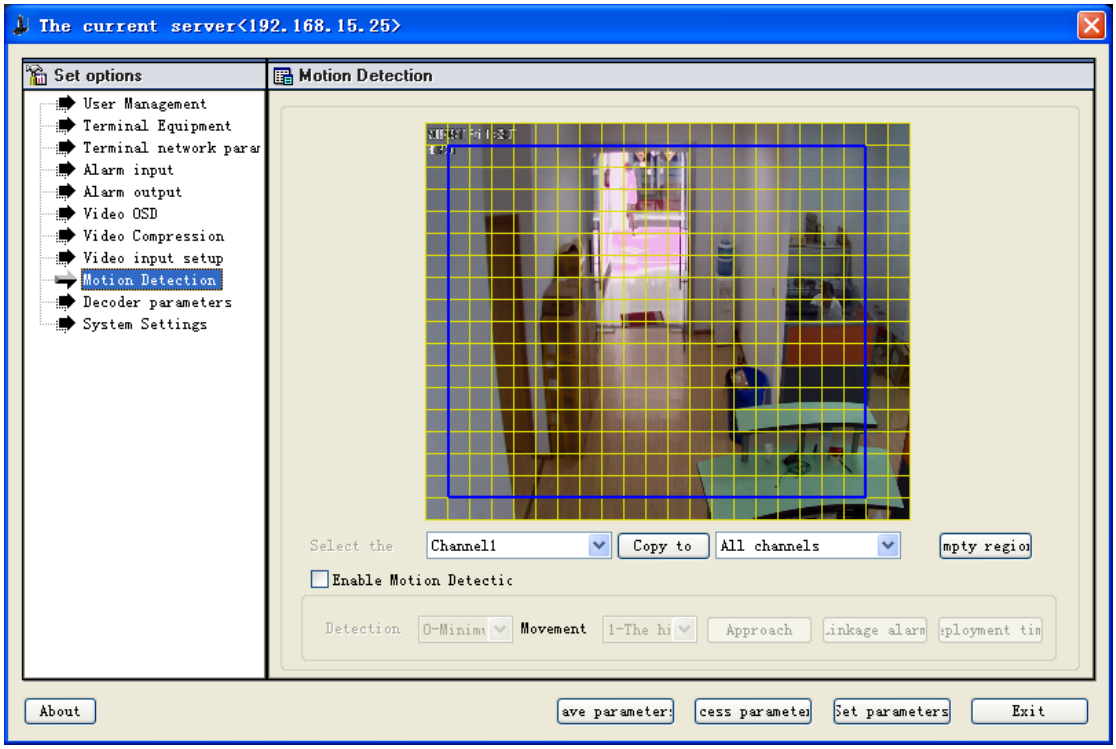


Figure 9-19

The processing methods for motion detection include alarming in a monitor, sound alarming, uploading to the management center and triggering alarm output, as in Figure 3-39.

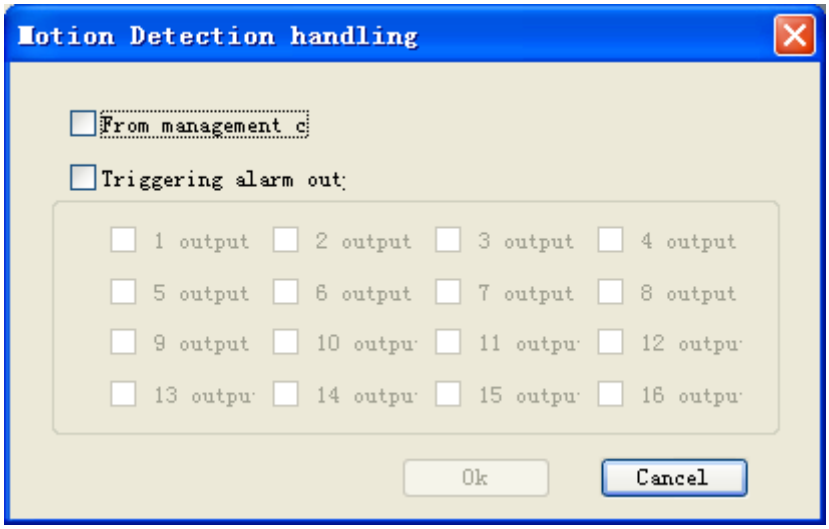


Figure 9-20

Linkage Alarm setting is as in Figure 9-21.

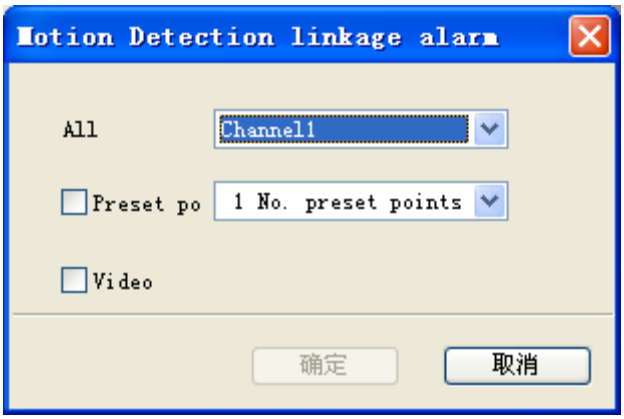


Figure 9-21

Setting up protection deployment time period of motion detection: To set up the start and end time of each weekday in a week. It is able to add any time period in a day. If there is a same time period for each weekday, the setting can be copied. Time periods can be added, changed and deleted, as in the figure bellow.

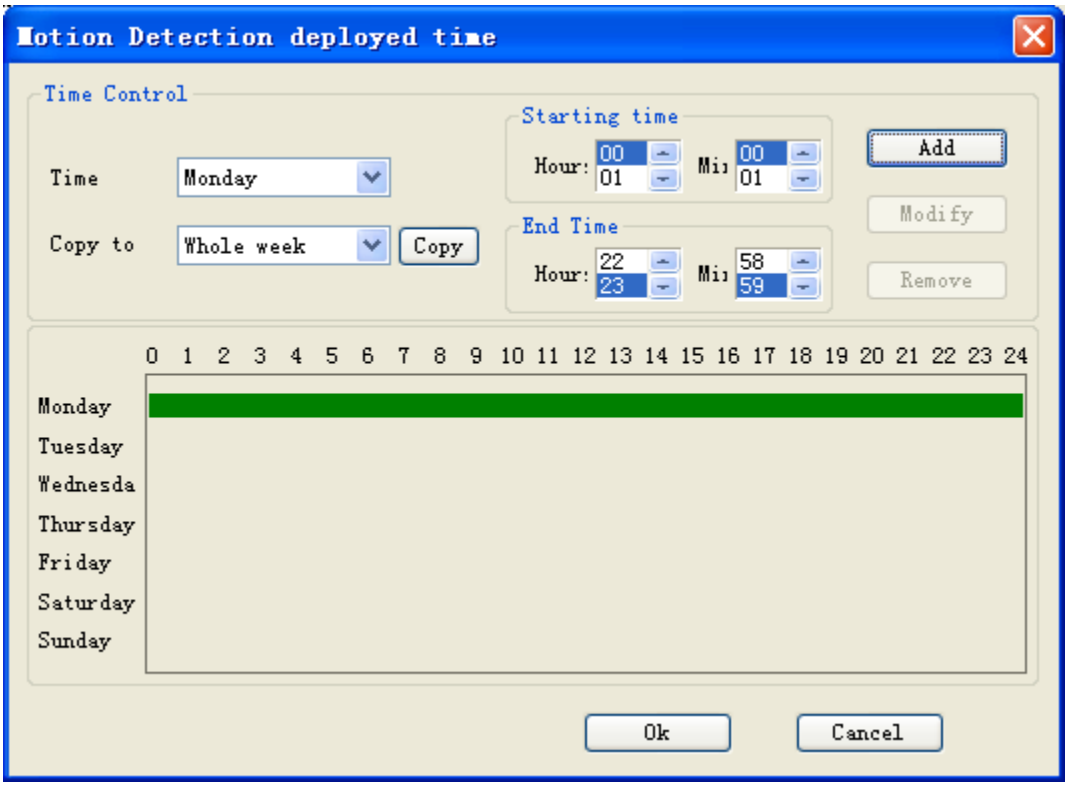


Figure 9-22

9.2.11 Decoder Parameter

Setting up decoder parameter is mainly to configure remote setting parameters when connecting a pan/tilt, including selection of control method, parameter setting, and pre-set point setting,

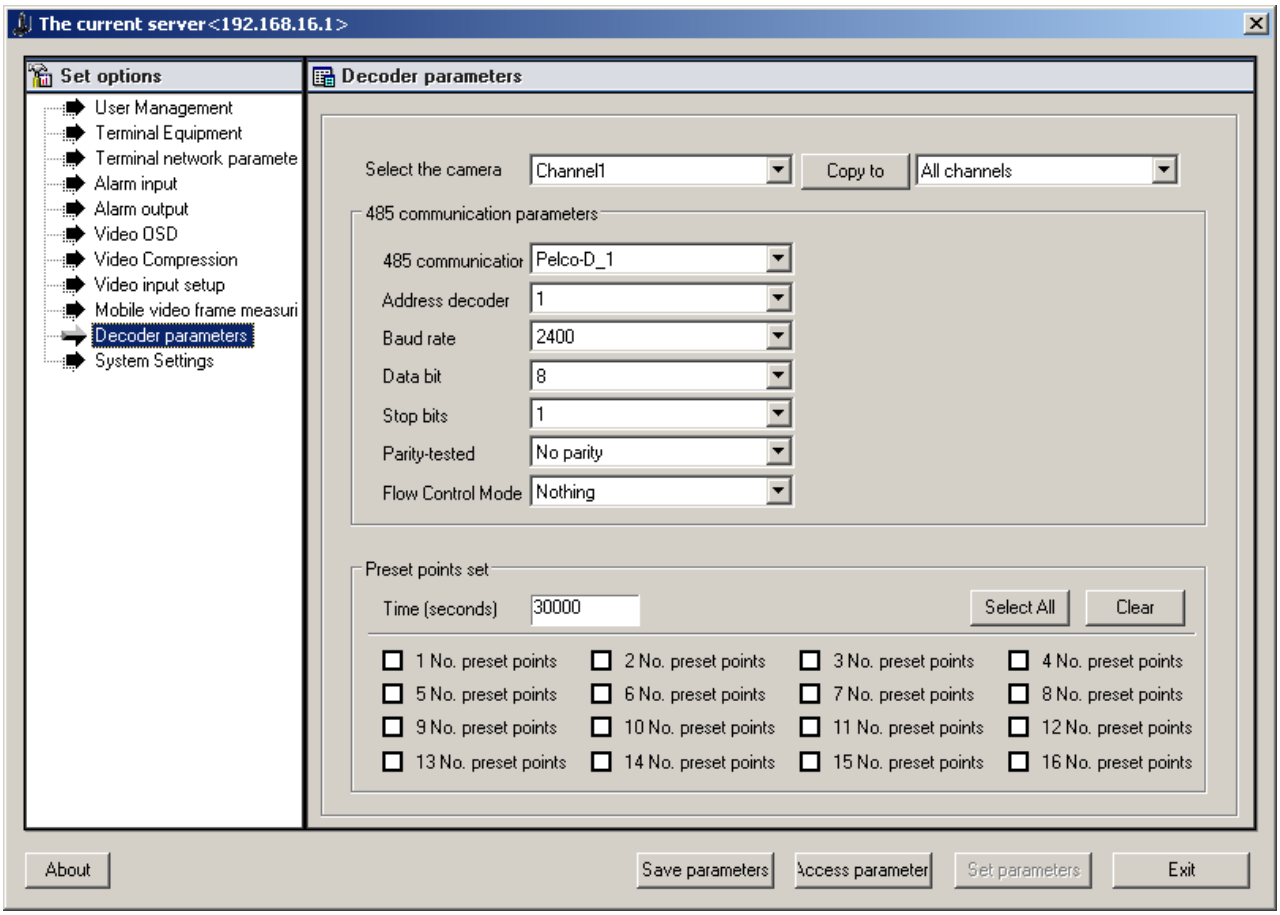


Figure 9-23

9.2.12 System Setting

System setting includes server upgrading, time for synchronizing devices and advanced device functions.

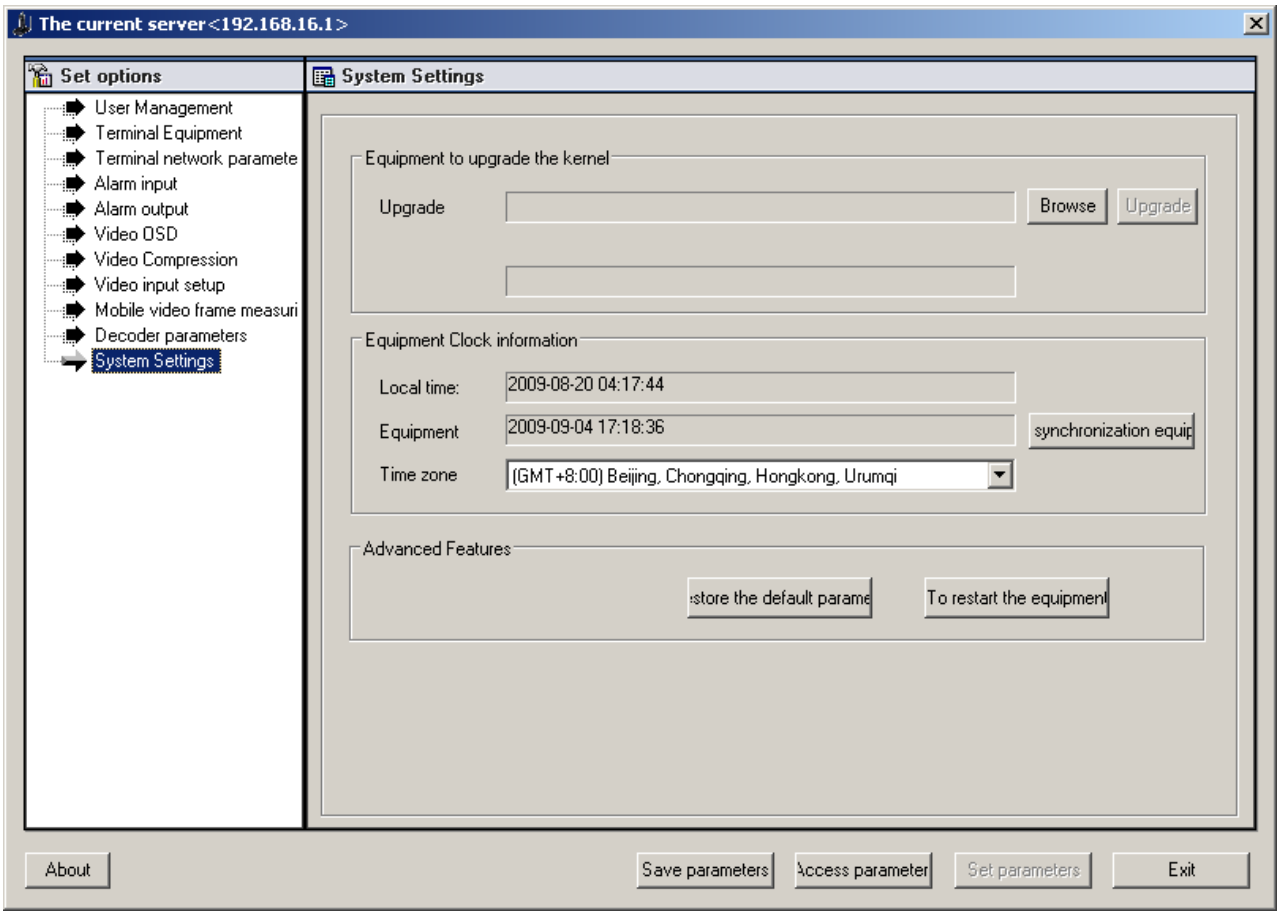


Figure 9-24

9.3 High Definition Video Camera Alarming

When the type of an alarm is alarm input, alarming input signal can be generated by video camera blocking, video covering, motion detection alarm, loss of video signal. The protection area shall be set in e-maps. Additionally, alarming cascading and its corresponding alarm answering processing shall be set.

Firstly it is to add maps. Right click mouse on the e-map in the map control window to select Open File dialog and then choose the corresponding map file. Map file can be in different image file format, e.g. BMP, JPG, GIF, etc. If a map file has no error, the map shall successfully appear in the panel for map list. Double click and the map shall be displayed.

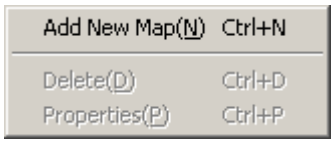


Figure 9-25

Note: The added e-map shall be recorded automatically in the system.

It is able to add labels for High Definition video cameras and alarms on e-maps, visually displaying the installation positions of video cameras and alarms.

Select “Video Camera” device from the control panel of the directory tree on the left and then use mouse to drag the camera to the corresponding position on a map to complete the addition.

The e-map after addition of host machine label shall record it automatically in the system. The position of the added device shall be locked automatically. If it is necessary to change the position of the device, please right click on the device to select “Label Position Unlock”. The label can be moved or deleted after being unlocked.

After protection deployment completed for frontend devices, the alarm server can capture the real-time alarm information of the frontend devices and set up the association of the related protection areas on e-maps.

1. It is optional to associate video camera with alarm. Select the menu “Tool” – “Setting” - “System Parameter Setting” to open Protection Area Setting dialog.

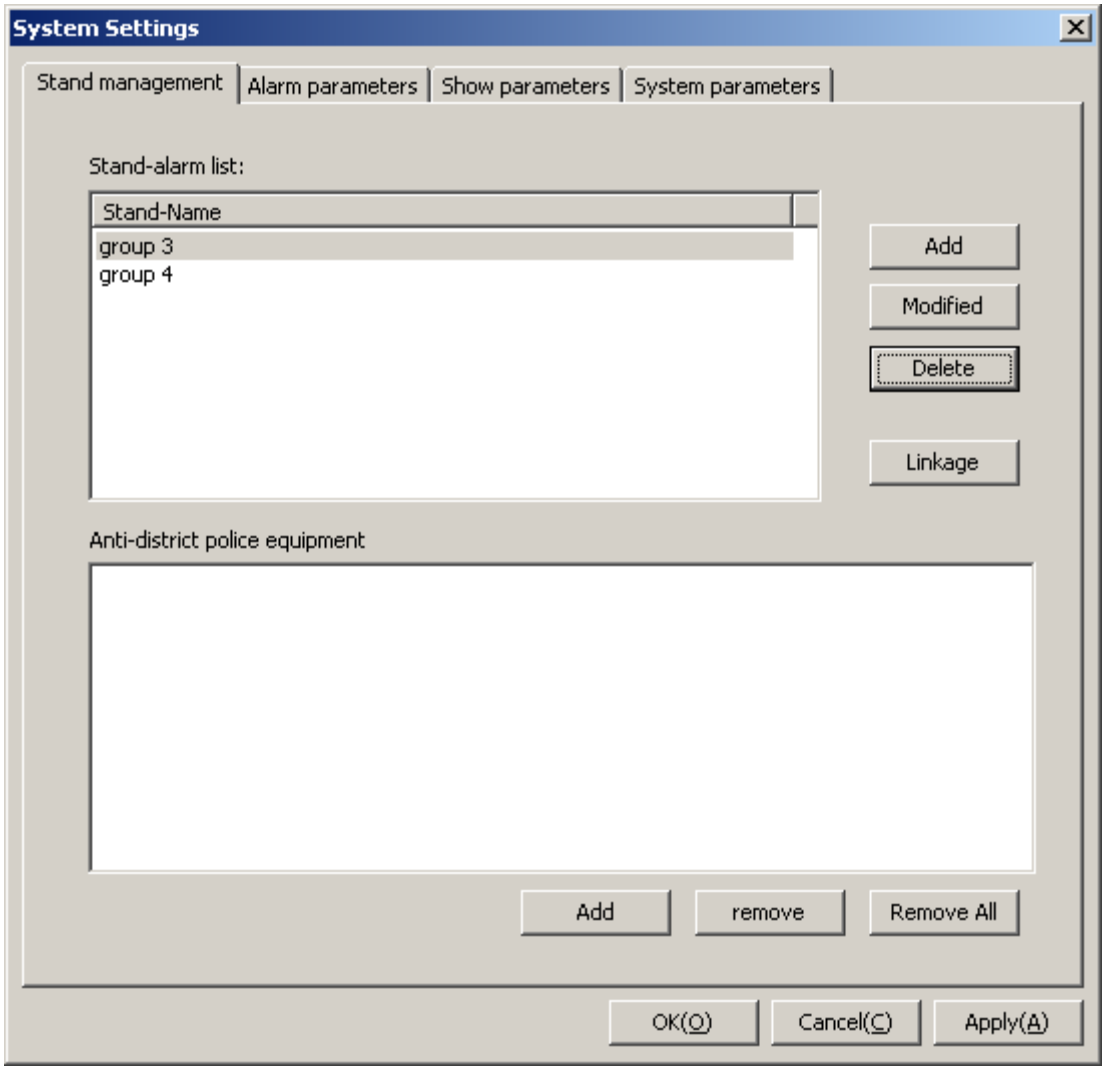


Figure 9-26

Protection Area is a concept in general, that normally means using detector (including emergency alarm equipment) to give protection to the protected objects and clearly displaying the region from where the alarm is on the control device. Normally, a organic integration consisting of associated video camera, alarm and e-map, etc., is called a Protection Area.

To add a protection area in the protection area management interface shown in the figure above, first select and add the devices that are part of protection area cascading in the window bellow.

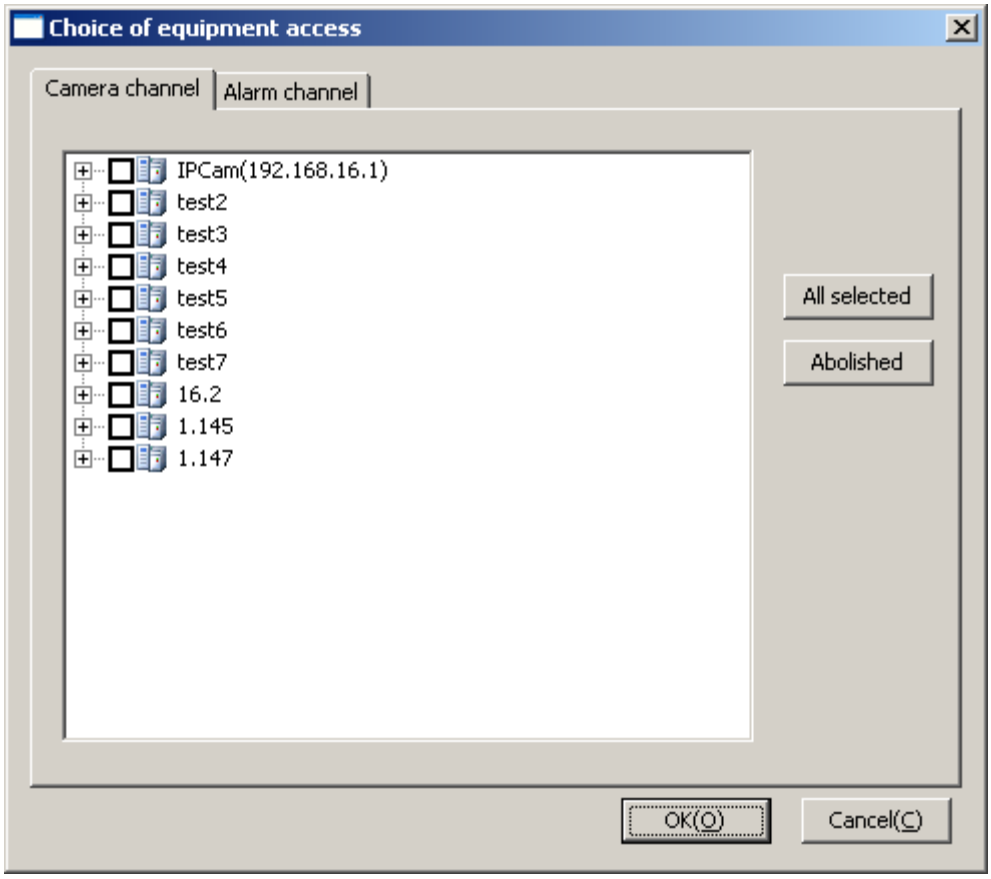


Figure 9-27

Select “Linkage Alarm” to set up joint action devices and processing method after alarming. The added joint action video camera can invoke pre-set points of a pan/tilt and auxiliary switch if the camera is associated with the pan/tilt. In addition, it is able to send alarming video to TV wall and pop up in the video window on the TV wall. The alarming video can be connected in a floating window. Moreover, external alarming devices can also be connected.

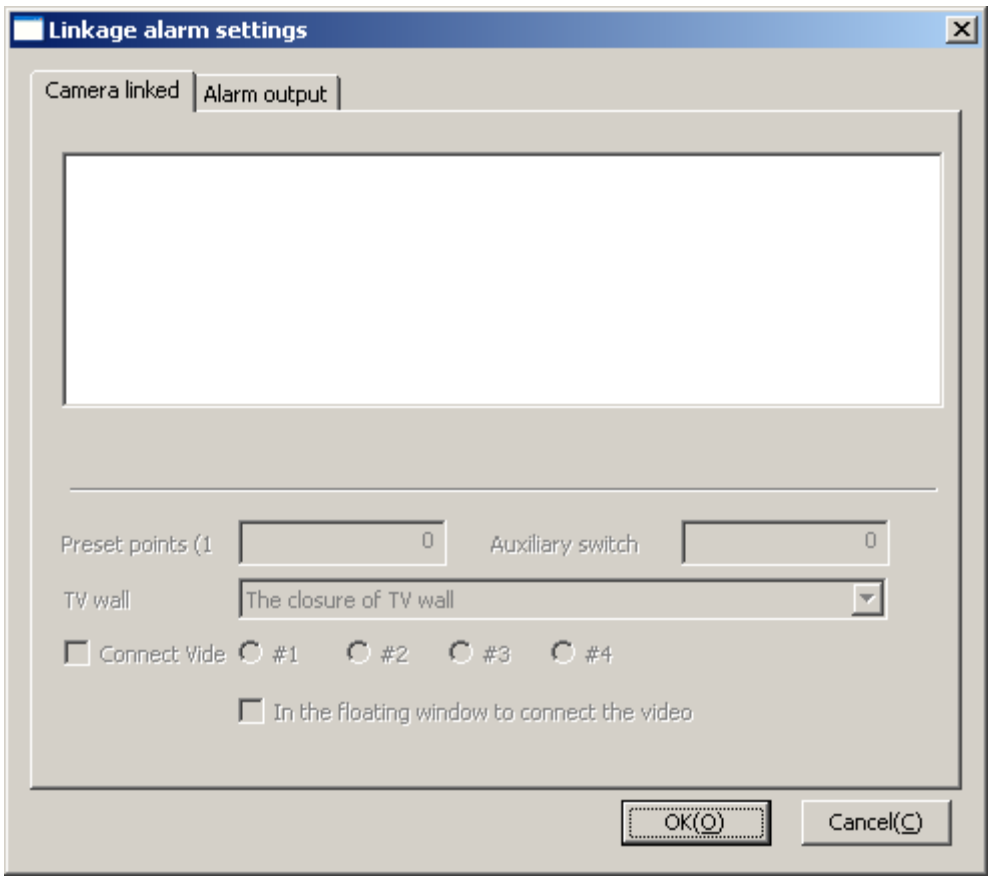


Figure 9-28

Select “Alarm signal detection” to set up the alarm type for detection, e.g., alarming signal of alarm device, motion detection alarm, blocking of video camera or loss of video signal, etc.

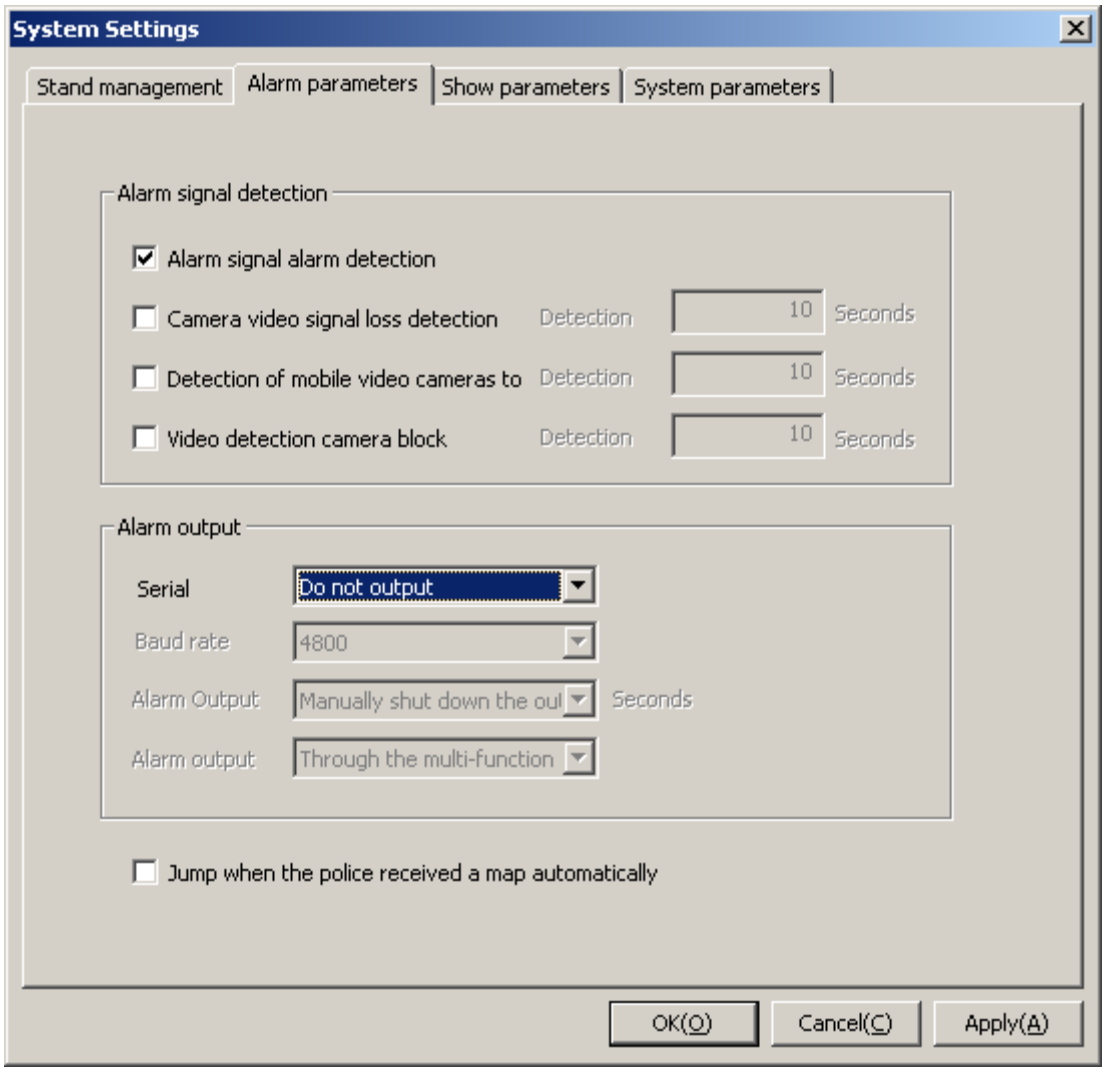


Figure 9-29

When alarming, it is allowed to connect alarm images manually/automatically. Double click the icon of video camera on a map. The system shall pop up a small window to connect video. It is possible to fix this video window in the area under the map.

Printing may give rise to minor discrepancy between the photo and the product

For the purpose of product upgrading, reserves the right to amend product design, specifications and parameters without notification.

The right of final explanation of this manual.